APPENDIX A

COMMITTEE ROSTERS

Table A-1: Committee System Balance

Committee Balance			
The Committees have the following numbers of members in each system.			
SYSTEM	**AD HOC**	**TECHNICAL**	**COMMUNITY**
Transportation / Logistics / Infra.	5	13	4
Economic Dev / Business	12	1	4
Military	2	1	0
Governance / Public Mgmt	9	7	3
Tourism / Conv / Sports	3	0	3
Health & Human Services	1	1	2
Education	3	0	1
Environment	1	4	0
Culture / Arts / History	0	2	1
Urbanization / Demograph. / Neighborhoods	0	2	5
Real Estate / Development	0	0	2
TOTAL	**36**	**31**	**25**

Table A-2: Ad Hoc Regional Committee

Ad Hoc Regional Committee			
The Ad Hoc Regional Committee is a high-level, policy-oriented group that will guide the efforts of the Consultant team throughout the Vision 2050 Airport Master Plan project. This committee will advise on the future of the San Antonio region and the vision that the Airport should have to support the region's future. The group includes executive members of the City of San Antonio, Bexar County, Port San Antonio, VIA Metropolitan Transit, Texas Department of Transportation, large corporate employers and other regional entities. The committee will meet approximately 3 times over the 18-month project duration.			
NAME	**TITLE**	**ORGANIZATION**	**AREA**
Transportation / Logistics / Infrastructure (5)			
Ross Milloy	Executive Director	Austin-San Antonio Intermunicipal Commuter Rail District	Transportation
Sid Martinez	Director	Metropolitan Planning Organization	Transportation
Mario Medina	District Engineer	Texas Department of Transportation	Transportation
Keith Parker	President and CEO	VIA Metropolitan Transit	Transportation
Bruce Miller	CEO	Port San Antonio	Trade
Economic Development / Business (12)			
Howard Peak	Vice President, Strategic Marketing / Chairman	AT&T	Business
Richard Perez	President and CEO	Greater San Antonio Chamber of Commerce	Business
Duane Wilson	President and CEO	North San Antonio Chamber of Commerce	Business
Ramiro Cavazos	President and CEO	San Antonio Hispanic Chamber of Commerce	Business
Mario Hernandez	President	San Antonio Economic Development Foundation	Business
Barbara Gentry	Senior Vice President of Community Affairs	USAA	Business
John White	Director of Corporate Aviation	Valero Energy	Business
Abel Martinez	Vice President	HEB	Business
Mari Aguirre	Community Affairs Mgr	Rackspace Hosting Inc.	Business
Melinda Rodriguez	President	Alamo Area Asian Chamber of Commerce	Business
Raul Rodriguez	President	RMI Mexico	Business
Ruth Kelleher Agather	Partner	Tuggey Rosenthal Pauerstein Sandoloski Agather LLP	Business
Military (2)			
Colonel William "Woody" Watkins	Director of Operations	U.S. Air Education and Training Command (Randolph AFB)	Military
Brigadier General Len Patrick	Commander	U.S. Air Force 37th Training Wing (Lackland AFB)	Military
Governance / Public Management (9)			
Nelson Wolff	County Judge	Bexar County	Government
Sheryl Sculley	City Manager	City of San Antonio	Government
Julian Castro	Mayor	City of San Antonio	Government

Jennifer Ramos	City Councilmember, District 3	City of San Antonio	Government
Elisa Chan	City Councilmember, District 9	City of San Antonio	Government
John Clamp	City Councilmember, District 10	City of San Antonio	Government
Kevin Wolff	County Commissioner, Pct. 3	Bexar County	Government
Naomi Miller	District Director, Office of Speaker Joe Straus	Texas House of Representatives	Government (State)
Leticia Van de Putte	State Senator	Texas Senate	Government (State)
Tourism / Convention / Sports (3)			
Scott White	Executive Director	Convention and Visitors Bureau	Tourism / Conv / Sports
Joe Linson	President	JEL & Associates	Tourism
Dan Decker	General Manager	Seaworld	Tourism
Health & Human Services (1)			
Bill Rasco	President and CEO	Greater San Antonio Hospital Council	Healthcare
Education (3)			
Dr. Lynda Y. de la Viña	Dean, College of Business	University of Texas at San Antonio	Education
Denver McClendon	Chairman	Alamo Community College District Board of Trustees	Education
Rebeckah Day	Vice President of Administration and Finance	St. Mary's University	Education
Environment (1)			
Suzanne Scott	General Manager	San Antonio River Authority	Environment
TOTAL MEMBERSHIP (36)			

Table A-3: Technical Advisory Committee

Technical Advisory Committee			
The Technical Advisory Committee includes representatives of the City as well as key stakeholders that have a particular technical knowledge or orientation that can contribute to the development of the Vision 2050 Airport Master Plan. The committee will advise on technical matters relating to specific airport plans and concepts. This may include staff members of the organizations represented in the Ad Hoc Regional Committee. The Technical Advisory Committee will meet approximately 6 times over the 18-month project duration.			
NAME	**TITLE**	**ORGANIZATION**	**AREA**
Transportation / Logistics / Infrastructure (13)			
Loren Wood	Chairman	Airport Advisory Committee	Airport
Alison Schulze	Senior Planner	Austin-San Antonio Intermunicipal Commuter Rail District	Transportation (Passenger Rail)
Bill Gold	Vice President (past)	Enterprise Rent-a-Car	Car Rental
Mario Diaz	General Manager	Landmark Aviation	General Aviation
Dan Gallagher	Planning and Engineering Manager	San Antonio International Airport	Airport
Tim O'Krongley	Assistant Director of Airport Operations	San Antonio International Airport	Airport
Eric Kaalund	Aviation Finance Director	San Antonio International Airport	Airport
Andrea Goodpasture	Manager – Properties	Southwest Airlines	Commercial Aviation
Ali Nasseri	President	San Antonio Taxi / Cab Association	Taxi
Milton Lee	President and CEO	CPS Energy	Utilities
Jason Coles	Vice President of Port Management	Port San Antonio	Trade
Kelly Neumann	Vice President of Engineering and Construction	San Antonio Water System	Utilities
Julie Brown	Deputy District Engineer for San Antonio District	Texas Department of Transportation	Transportation
Economic Development / Business (1)			
Renee Alton	General Manager	Unison Maximus, Inc.	Concessions
Military (1)			
Robert Murdock	Director	City of San Antonio Office of Military Affairs	Military
Governance / Public Management / Safety (7)			
City Manager Selection [Budget/Finance]	Management and Budget Director	City of San Antonio	Government
Leo Vasquez	Federal Security Director	Transportation Security Administration	Airport Security
Ramon Juarez	Port Director of San Antonio International Airport	United States Customs and Border Protection	Customs
Ronald Bruner	Commander	San Antonio Police Department	Law Enforcement
David Martinez	Deputy Chief	San Antonio Fire Department / Aircraft Rescue Fire Fighting	Fire Safety

Mike Sawaya	Convention and Facilities	City of San Antonio	Government
John Osten	Planning	City of San Antonio	Government
Health & Human Services (1)			
Elaine Mendoza	CEO	Conceptual Mindworks	Health & Human Services
Environment (4)			
Peter Bella	Director of Natural Resources	Alamo Area Council of Governments	Air Quality / Environment
Carol Patterson	Director, District 1	Edwards Aquifer Authority	Water / Environment
Stephen Colley	Green Building Coordinator / Architect	San Antonio's Metropolitan Partnership for Energy	Energy Efficiency / Green Building
Diana Glawe	Co-Chair	U.S. Green Building Council Central Texas	Energy Efficiency / Green Building
Culture / Arts / History (2)			
Chuck Ramirez	Artist	-	Culture / Arts / History
Jimmy LeFlore	Director	Public Art San Antonio	Culture / Arts / History
Urbanization / Demographics / Neighborhoods (2)			
Chairperson	Planning Commissioner	San Antonio Planning Commission	Comm. Planning /
Karl Eschbach	Texas State Demographer	University of Texas at San Antonio	Demographics
TOTAL MEMBERSHIP (30)			

Table A-4: Community Advisory Committee

Community Advisory Committee			
The Community Advisory Committee includes members of the Airport Advisory Commission, neighborhood leaders, business leaders and leaders of special interest groups who will offer input on historical, community and regional information that will be considered in creating the Vision 2050 Airport Master Plan. The members will advise on community concerns and goals as input to the airport plans. The committee will meet approximately 6 times over the 18-month project duration.			
NAME	**TITLE**	**ORGANIZATION**	**AREA**
Transportation / Logistics / Infrastructure (4)			
Priscilla Ingle	Marketing Director	VIA Metropolitan Transit	Transportation
Stephanie Bocanegra	Chief of Staff	San Antonio Water System	Water
Wayne Alexander	Chairman	Port San Antonio	Trade
Joe Aceves	Executive Director, Infrastructure Services Department	Bexar County	Infrastructure
Economic Development / Business (4)			
Michael Meek	President	New Braunfels Chamber of Commerce	Business / Suburban Comm.
George Antuna	Director	Schertz Economic Development	Business / Suburban Comm.
Mary Rose Brown	Senior Vice President of Corporate Communications	NuStar Energy LP	Business
Kyle Burns	CEO	Free Trade Alliance	Business
Military (0)			
Governance / Public Management (3)			
Liz Worley	Councilmember	Hill Country Village	Suburban Community
Rudy Garcia	Councilman	Leon Valley	Suburban Community
Gloria Arriaga	Executive Director	Alamo Area Council of Governments	COG
Tourism / Convention / Sports (3)			
Leo Gomez	Vice President of Communications	Spurs Sports and Entertainment	Business
Marco Barros	Executive Director	San Antonio Area Tourism Council / Airport Advisory Commission	Tourism
Louis Barrios	President	San Antonio Restaurant Association	Restaurants
Health & Human Services (2)			
Jim Reed	President	San Antonio Medical Foundation	Healthcare
Linda Rivas	Board Member	University Health System	Healthcare
Education (1)			
Maria Ferrier	Interim President	Texas A&M San Antonio	Education

Culture / Arts / History (1)			
Bill Fitzgibbons	Director	Blue Star Contemporary Art Center	Arts
Urbanization / Demographics / Neighborhoods (5)			
TBD	TBD	District 2 Council Appointee	Neighborhood
Toni Moorhouse		District 3 Council Appointee	Neighborhood
TBD	TBD	District 6 Council Appointee	Neighborhood
TBD	TBD	District 9 Council Appointee	Neighborhood
TBD	TBD	District 10 Council Appointee	Neighborhood
Real Estate / Development (2)			
Rob Sut	Managing Director – Office & Healthcare Development	USAA Real Estate Company	Real Estate (Commercial)
Florence Terrell	Chair	San Antonio Board of Realtors	Real Estate (Residential)
TOTAL MEMBERSHIP (25)			

APPENDIX B

BACKGROUND RESEARCH

Figure B-1: Global Context

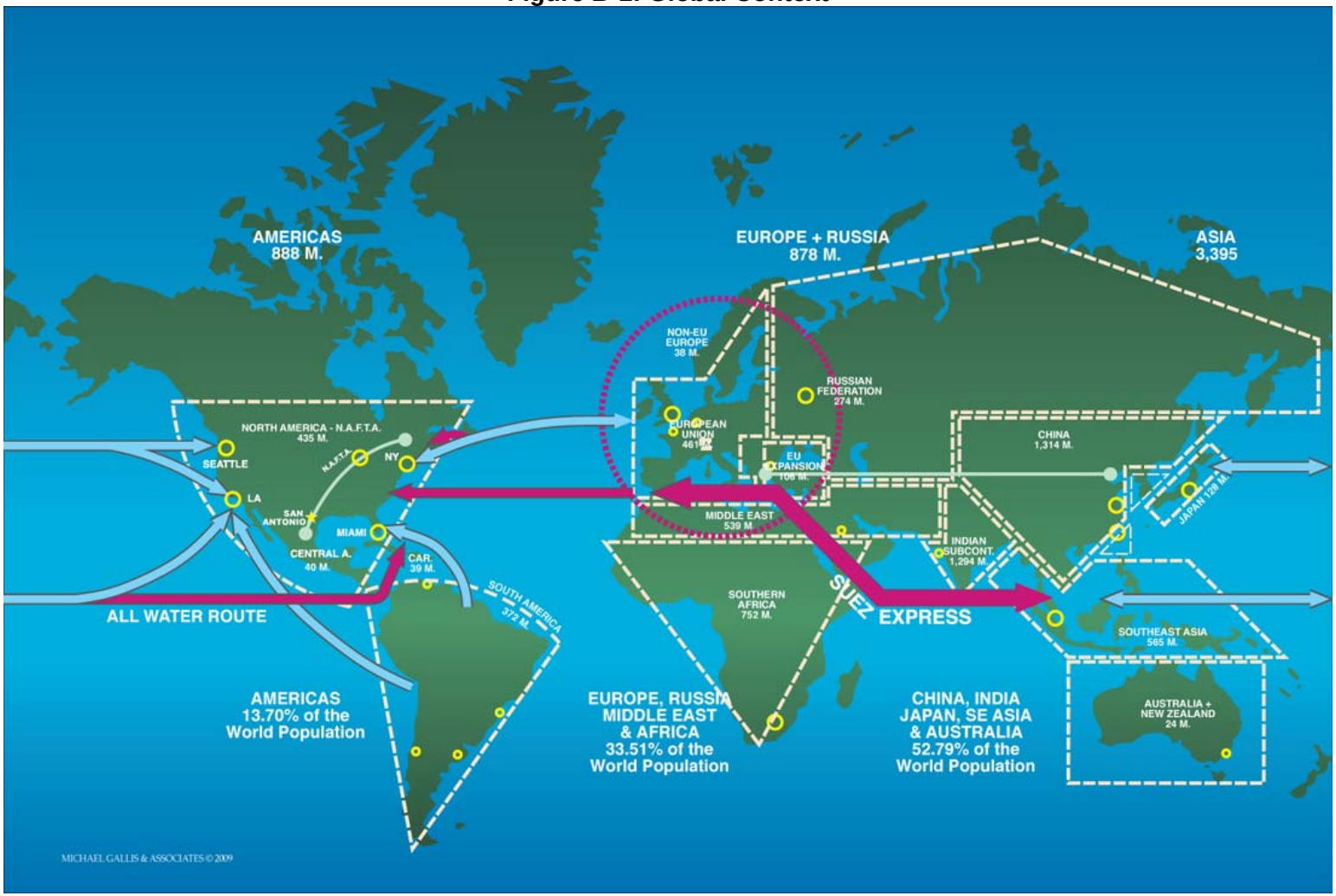

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Figure B-2: North American Trade Flows

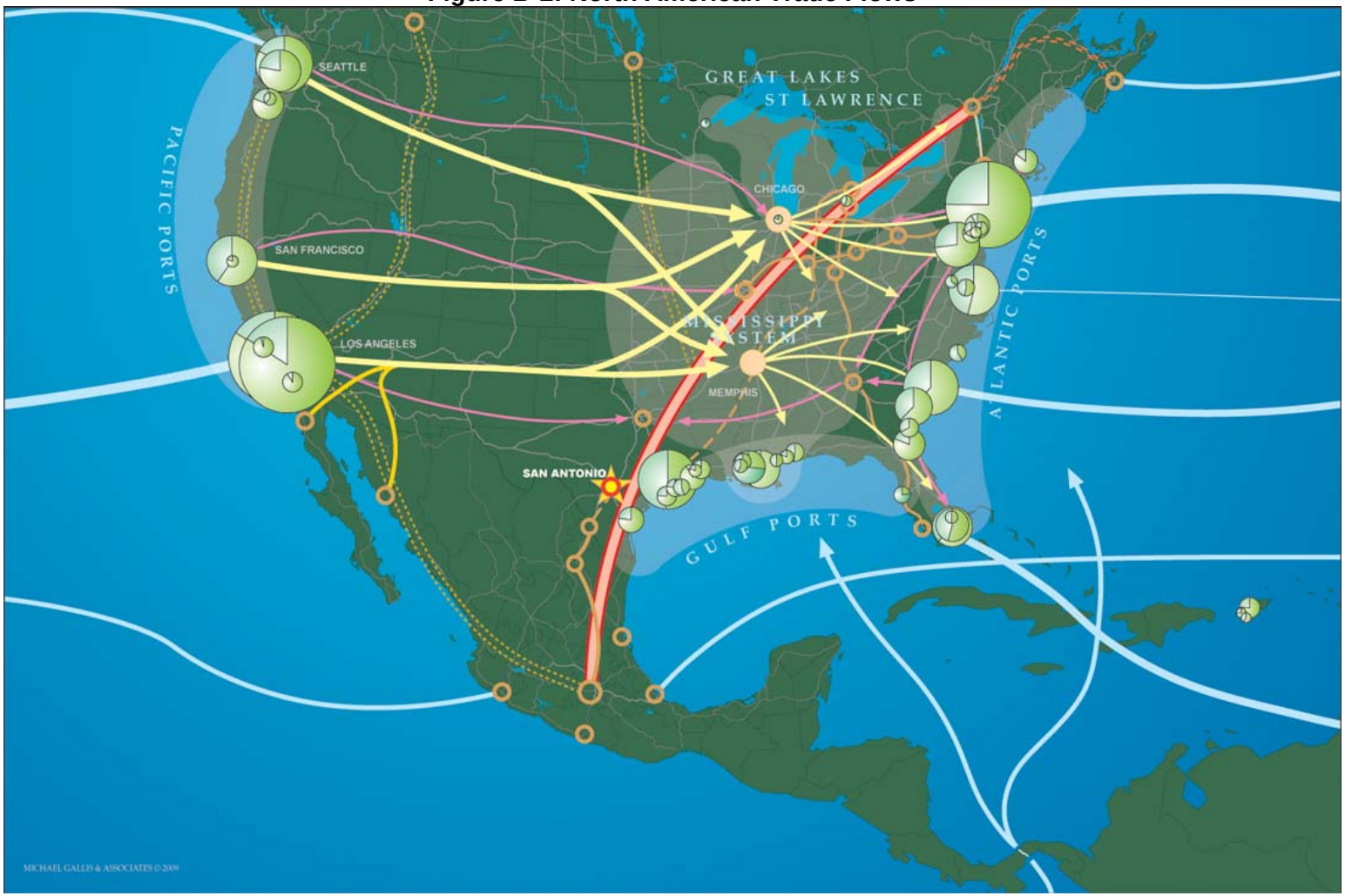

Figure B-3: US FAA Designated Air Hubs

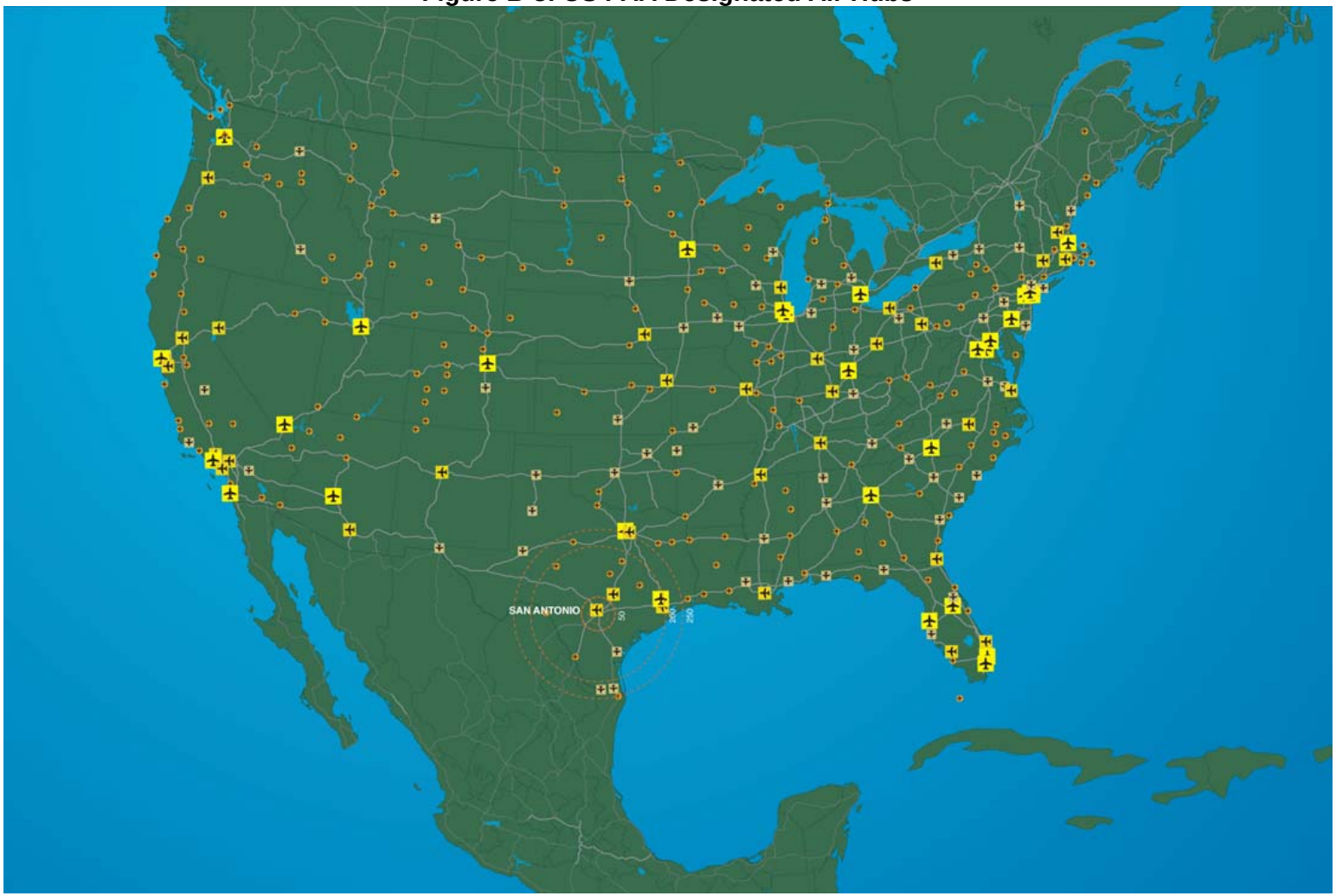

Figure B-4: San Antonio Non-Stop International Flights

Figure B-5: Austin Non-Stop International Flights

Figure B-6: Houston Non-Stop Flights

Figure B-7: Dallas Non-Stop International Flights

Figure B-8: San Antonio Super Region

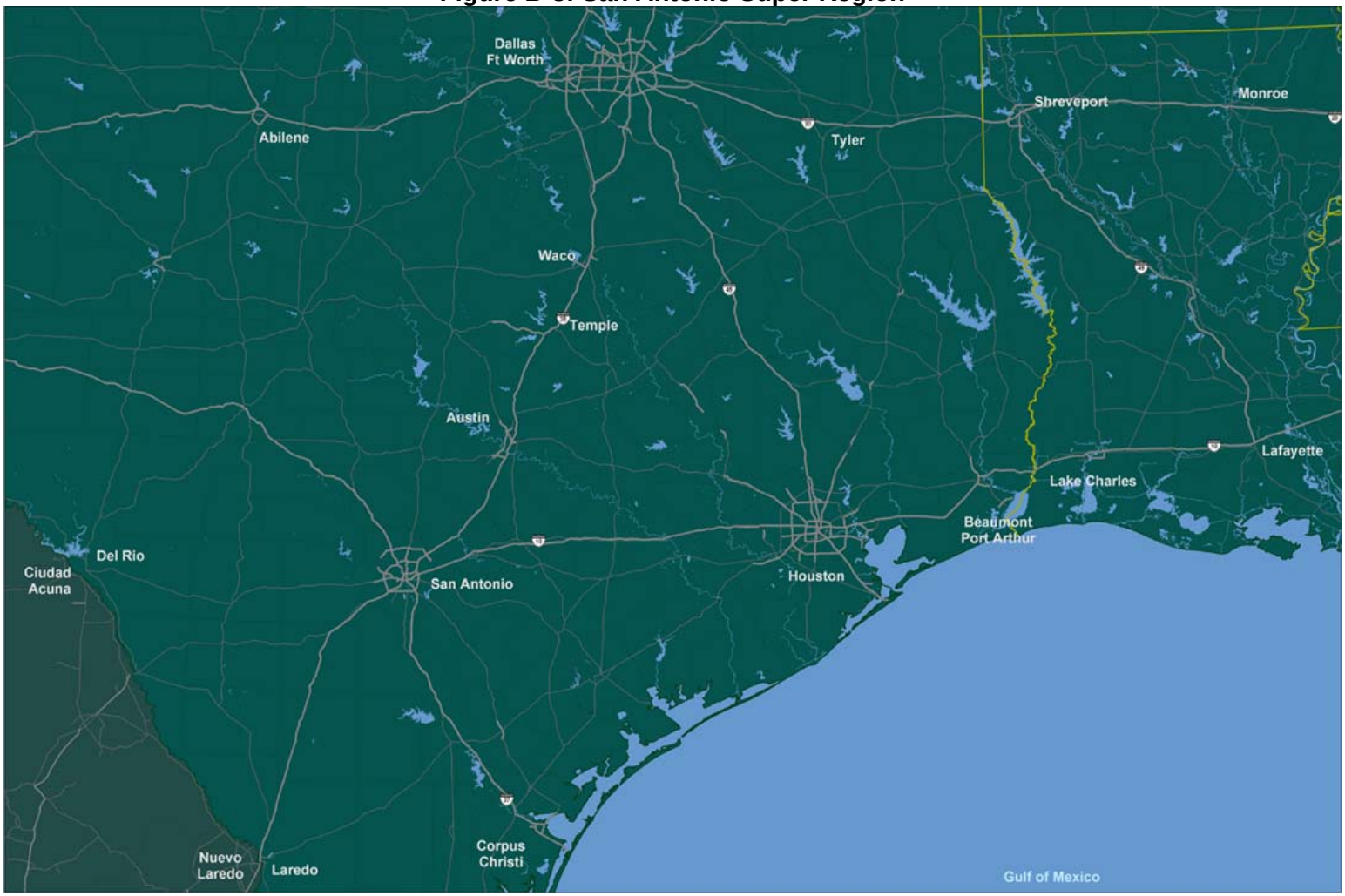

Figure B-9: Super Region Urbanization / Demographics – Population Density 2007

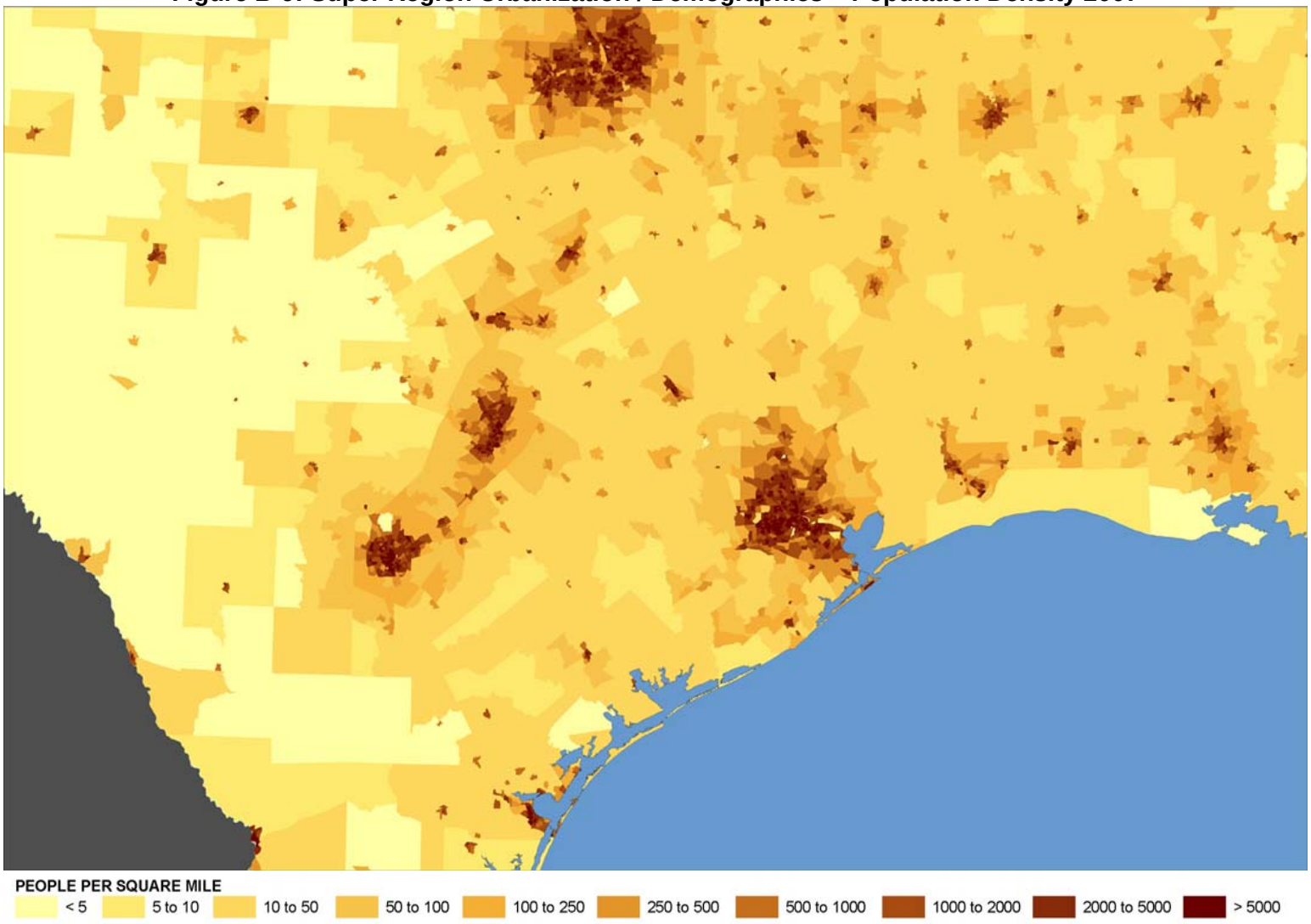

Figure B-10: Super Region Urbanization / Demographics – Population Growth 2000 - 2007

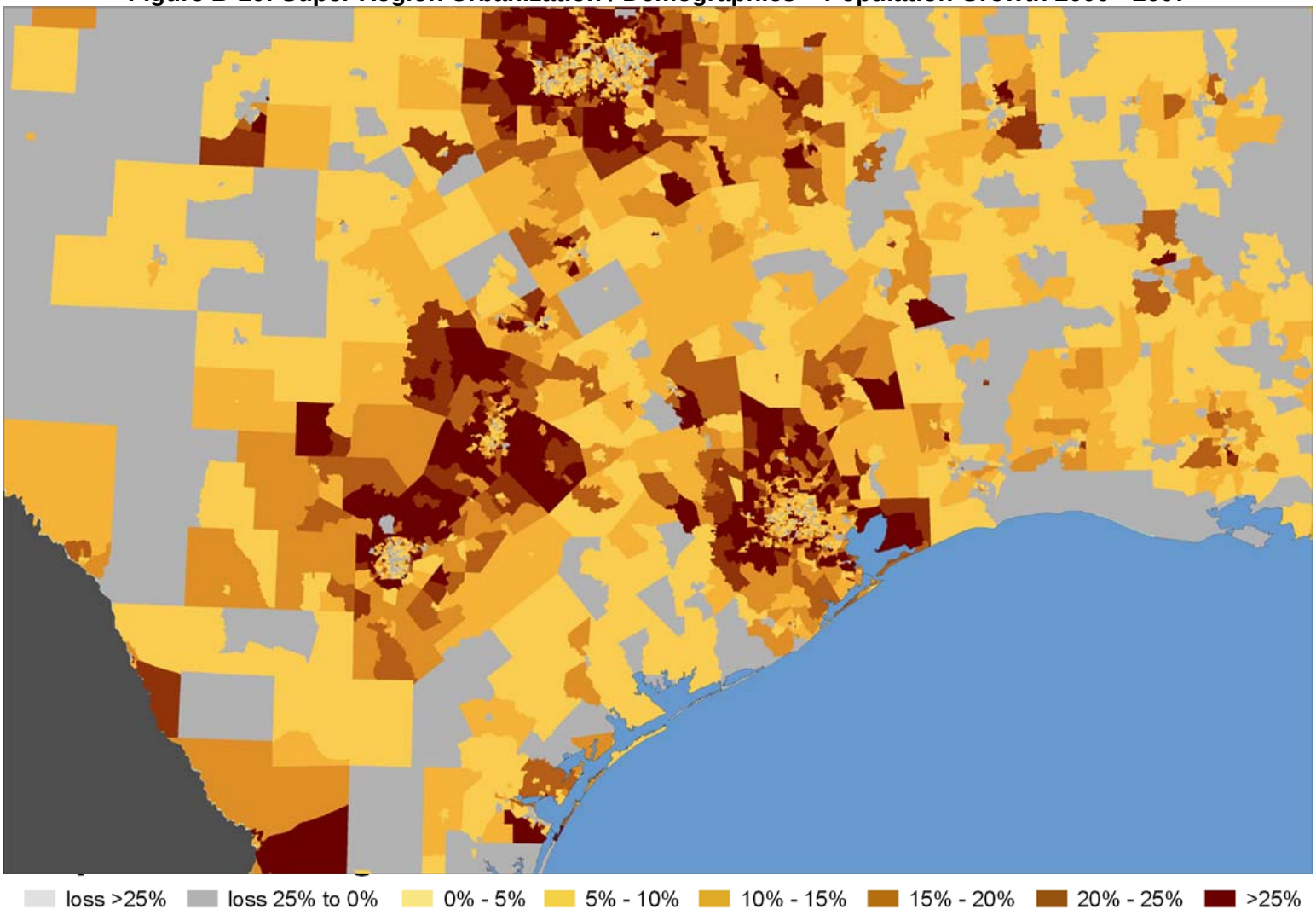

Figure B-11: Super Region Environment - Topography

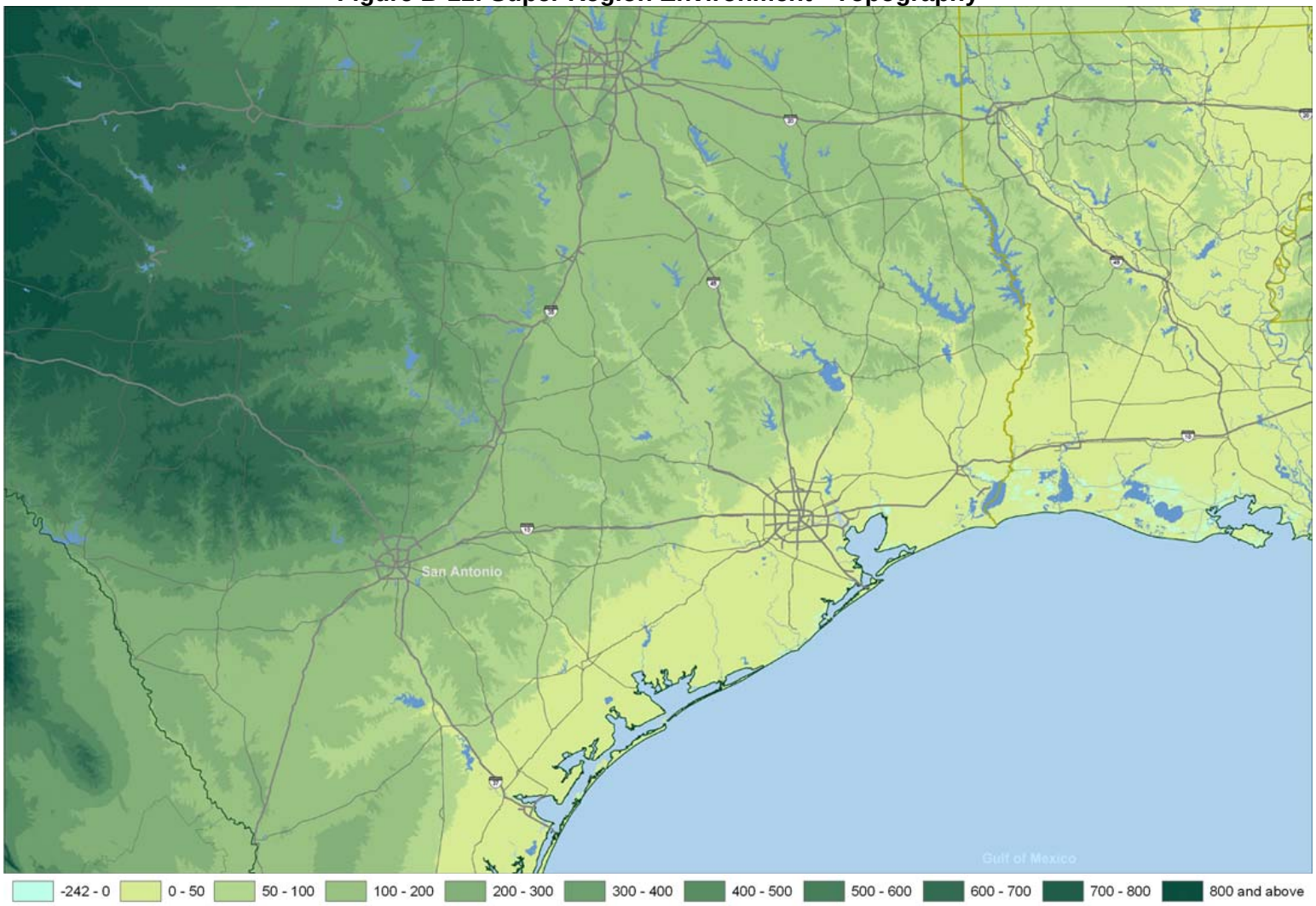

Figure B-12: Super Region Environment – Major Aquifers

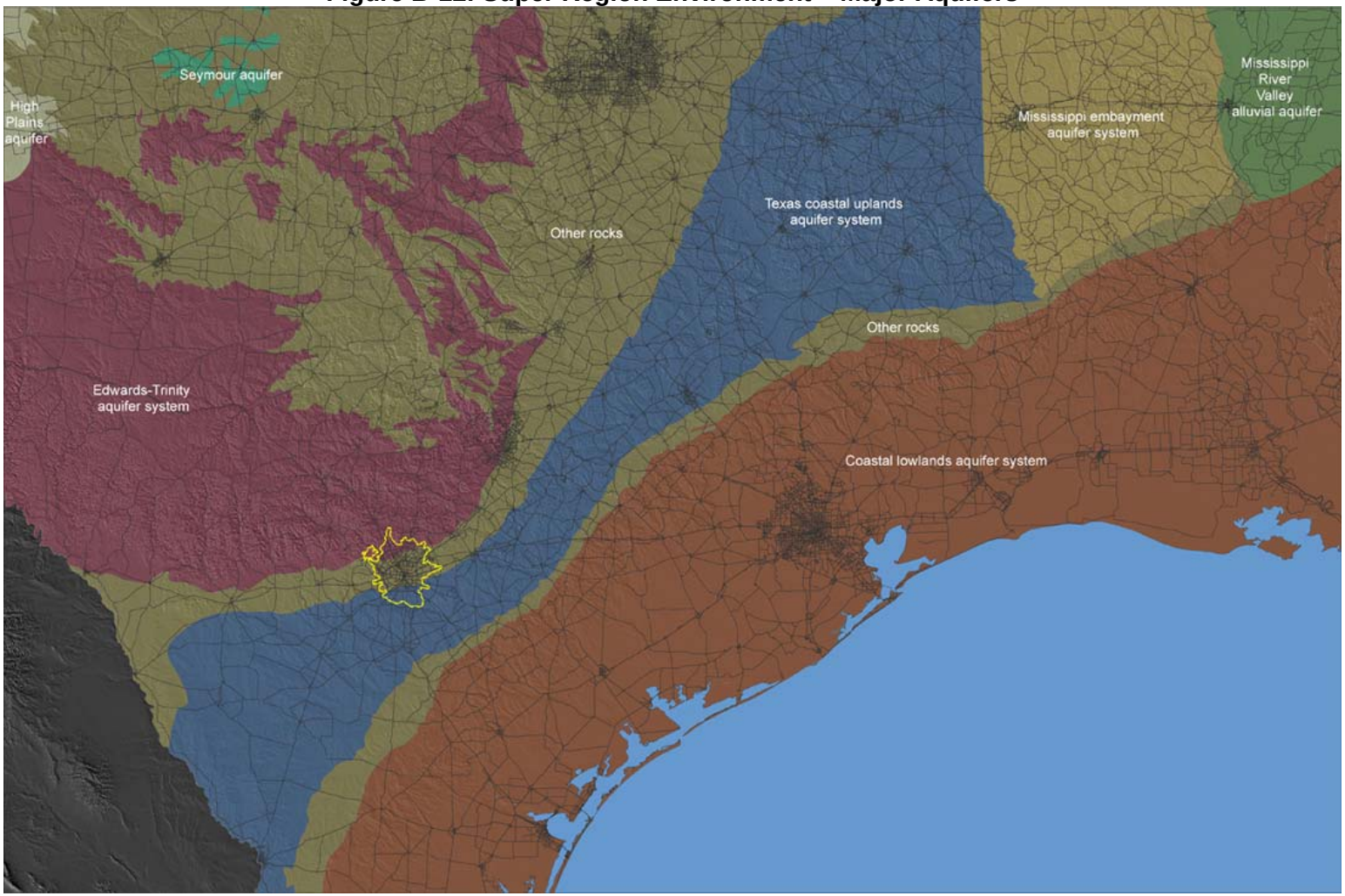

Figure B-13: Super Region Transportation / Logistics / Infrastructure – Major Highways

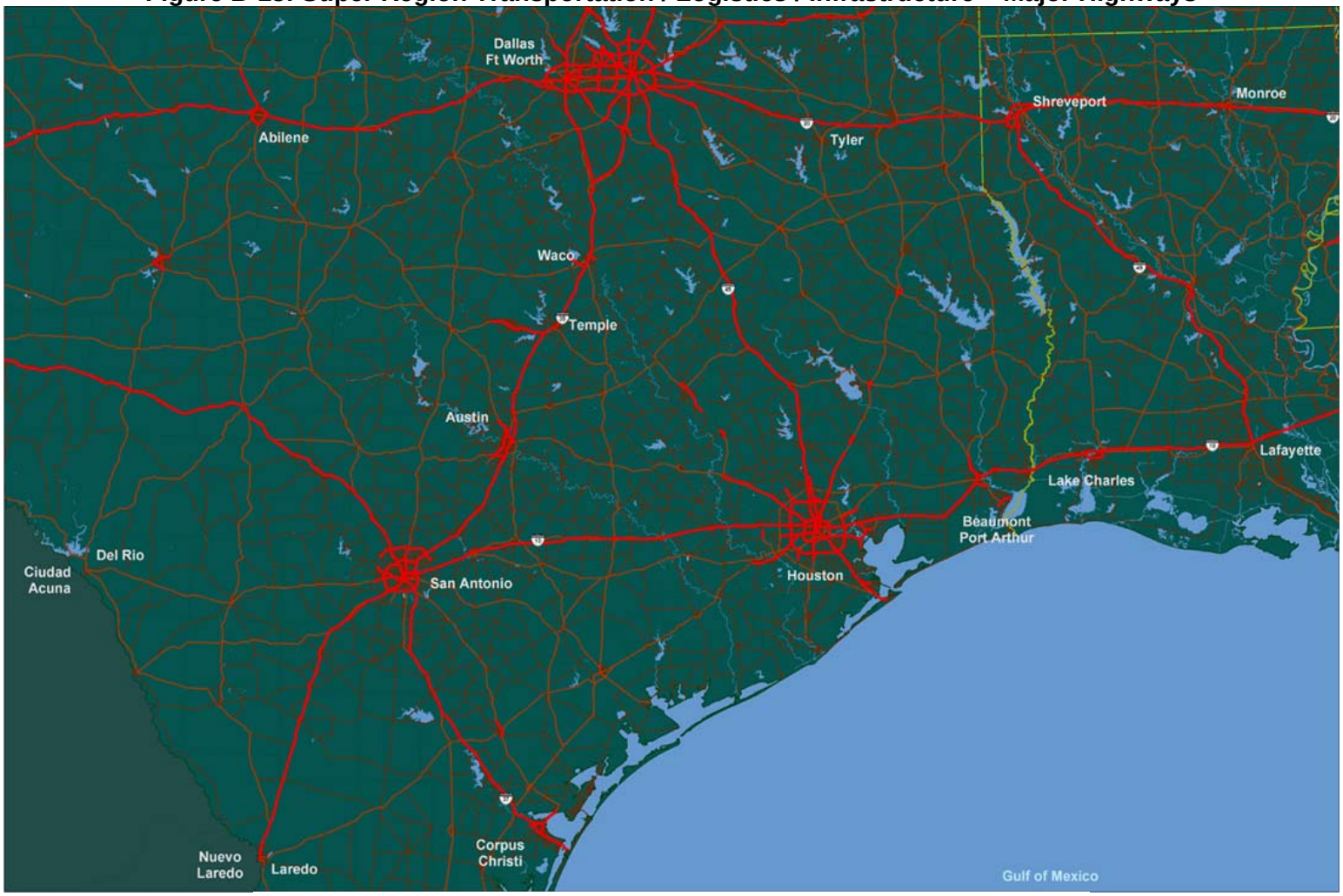

Figure B-14: Super Region Transportation / Logistics / Infrastructure – Traffic Counts

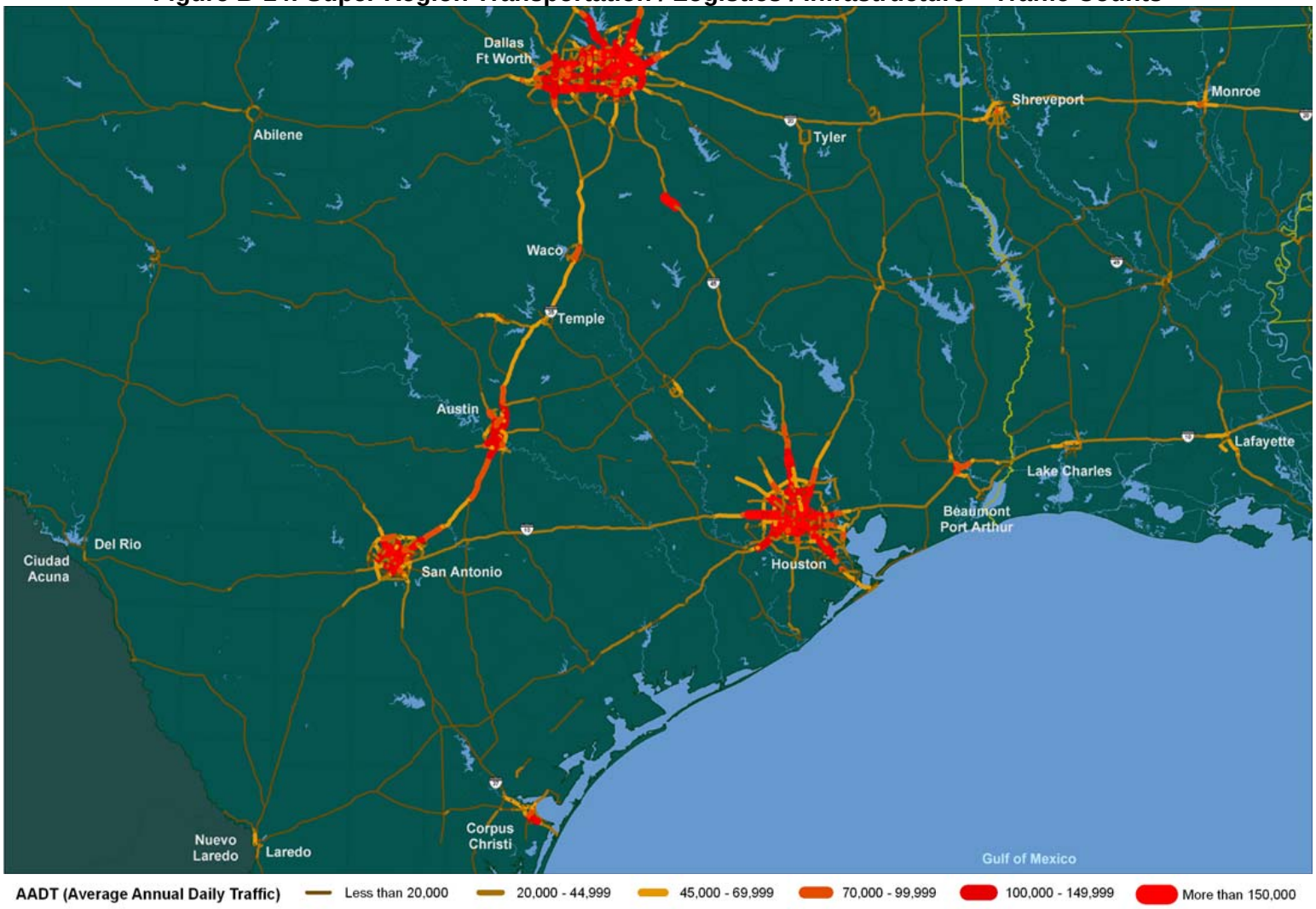

Figure B-15: Super Region Transportation / Logistics / Infrastructure – Truck Flows

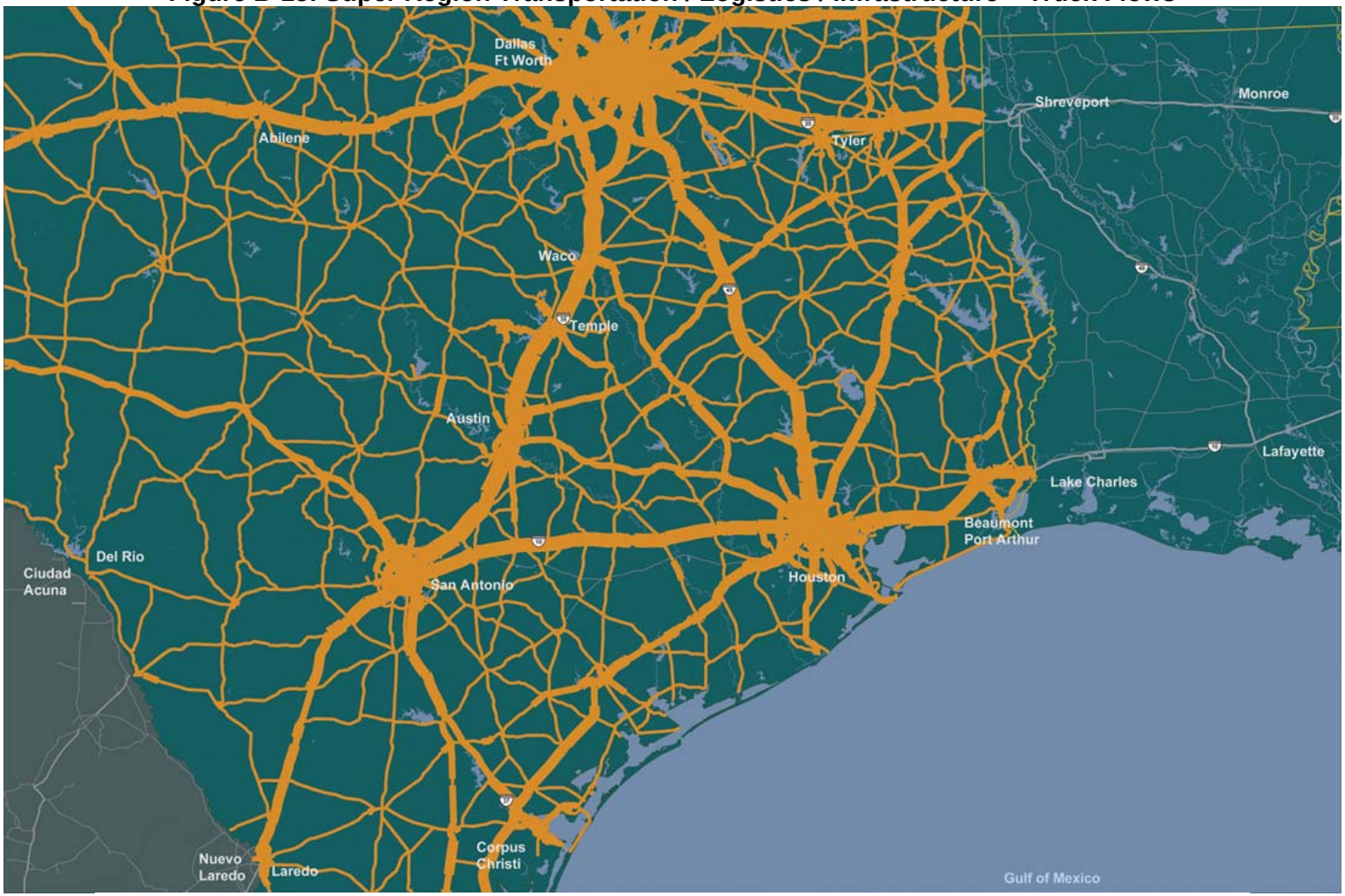

Figure B-16: Super Region Transportation / Logistics / Infrastructure - Airports

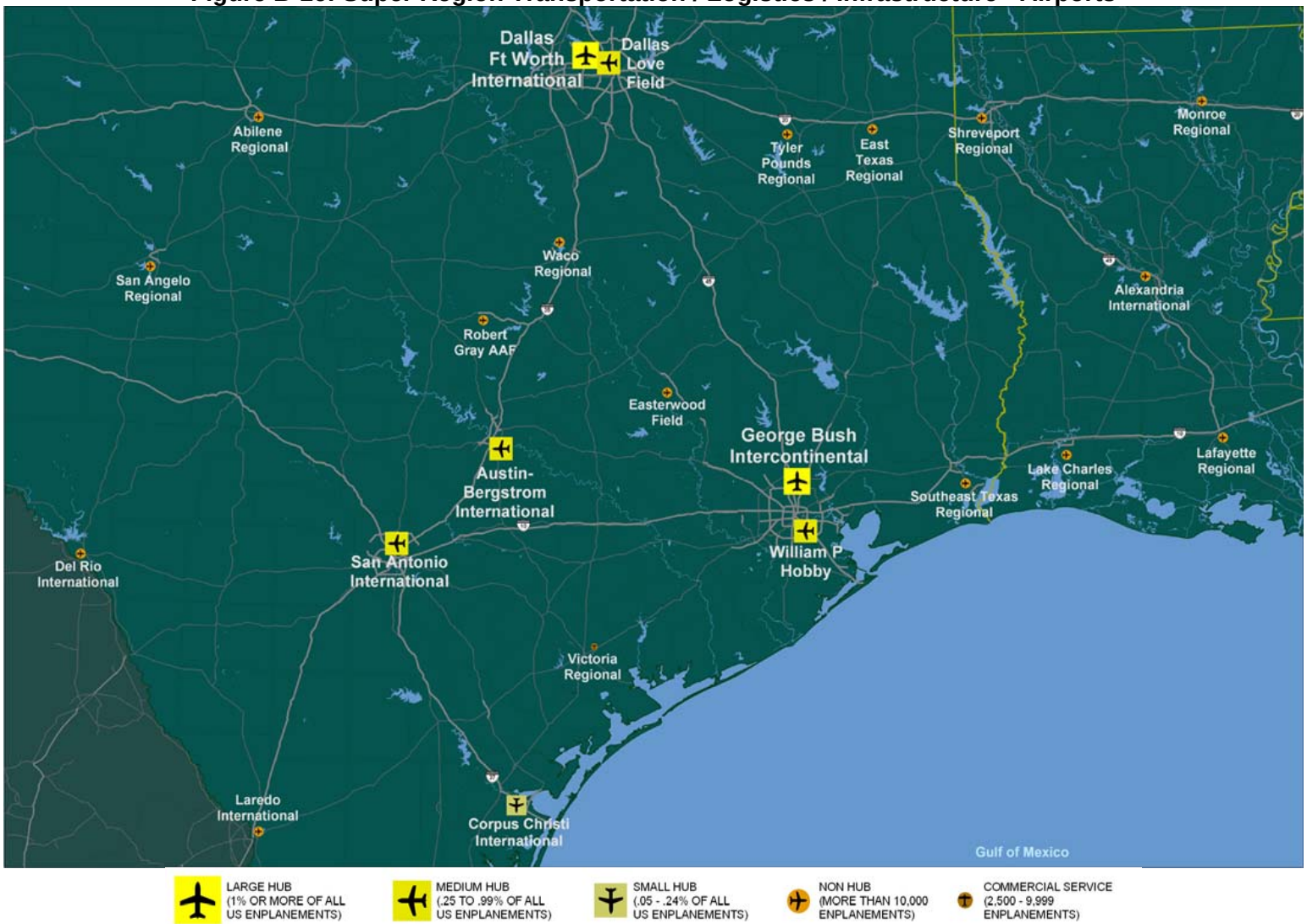

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Figure B-17: Super Region Transportation / Logistics / Infrastructure - Ports

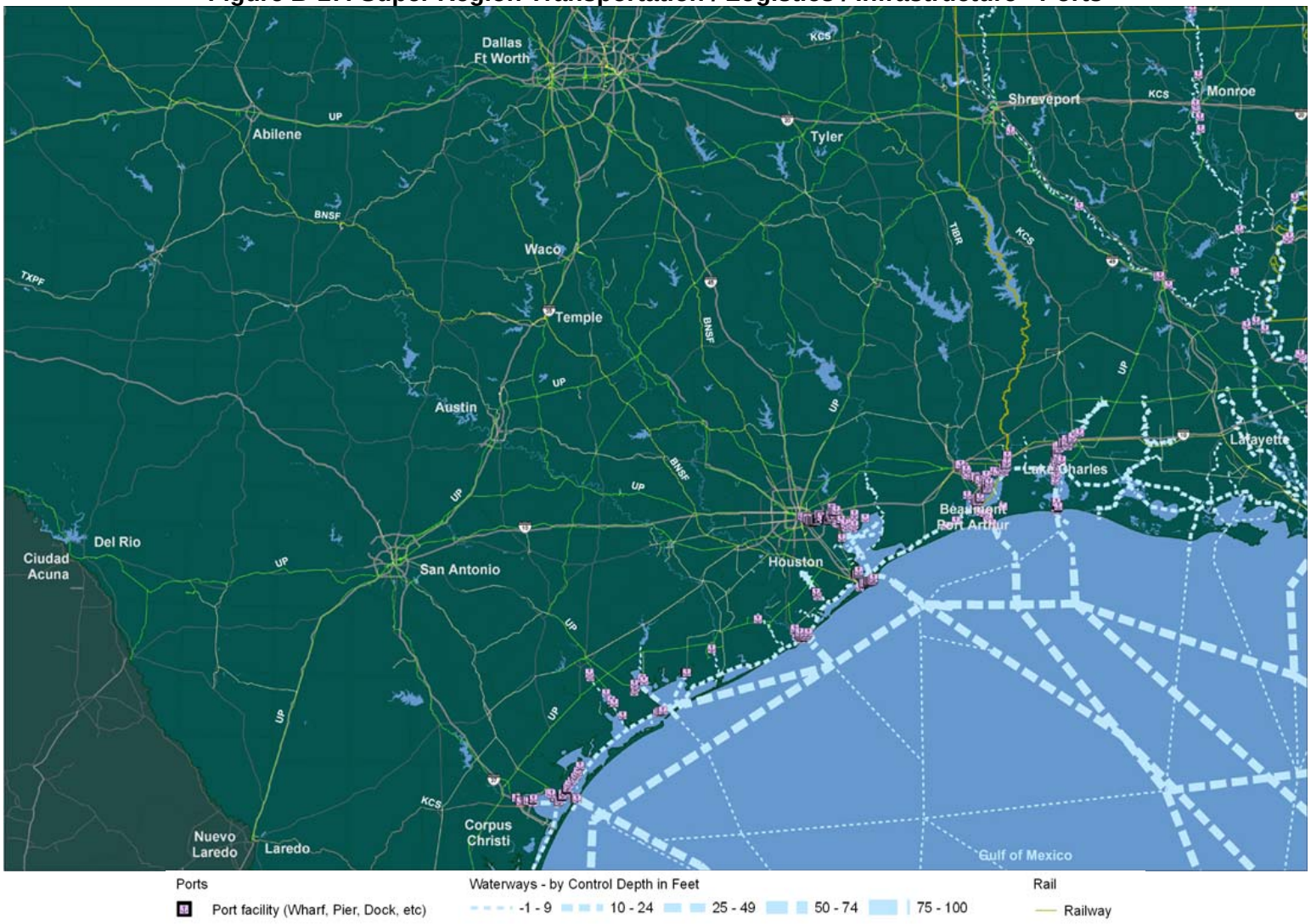

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Figure B-18: Super Region Education – Colleges and Universities

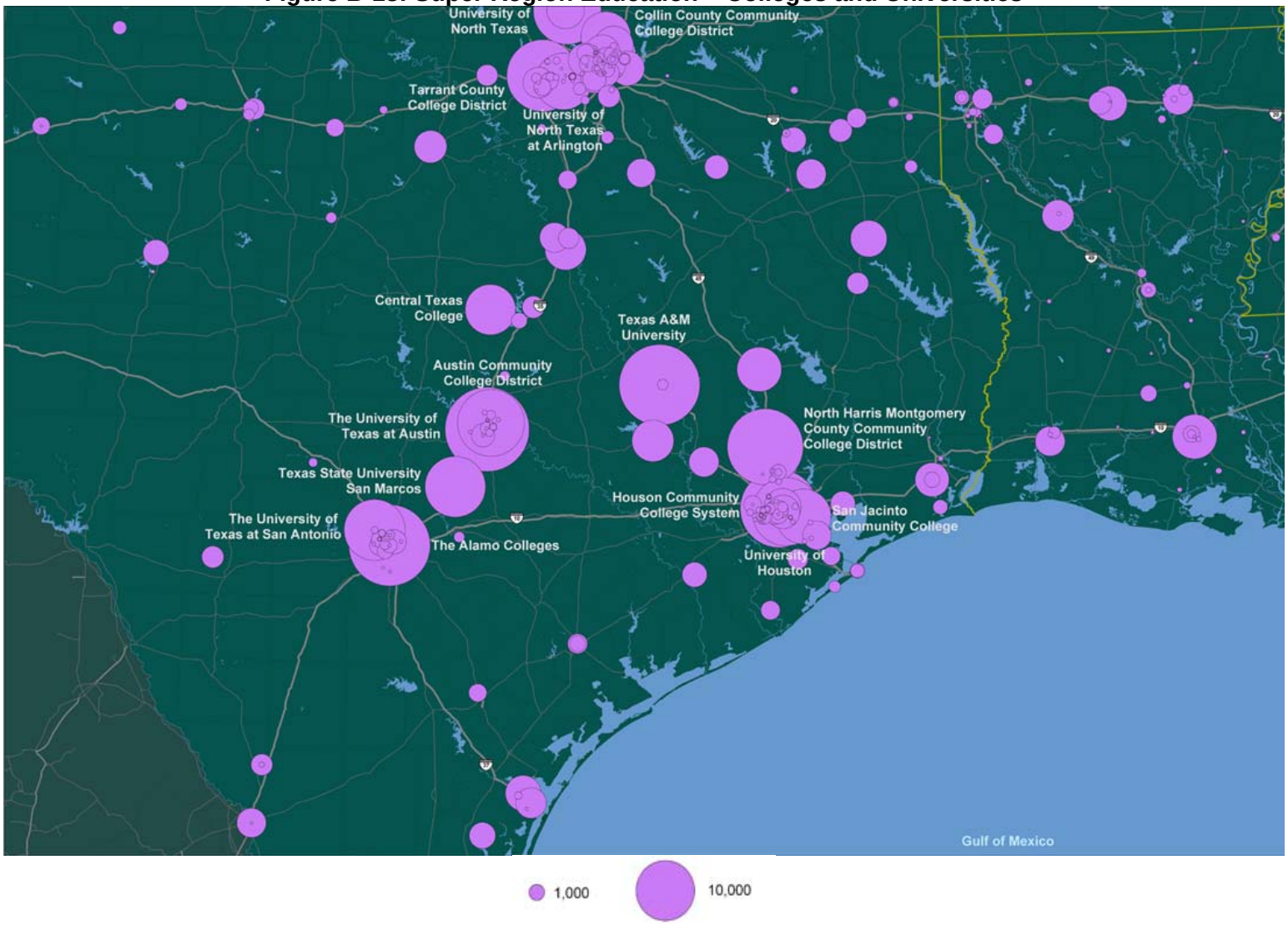

Figure B-19: Super Region Health & Human Services – Medical Schools

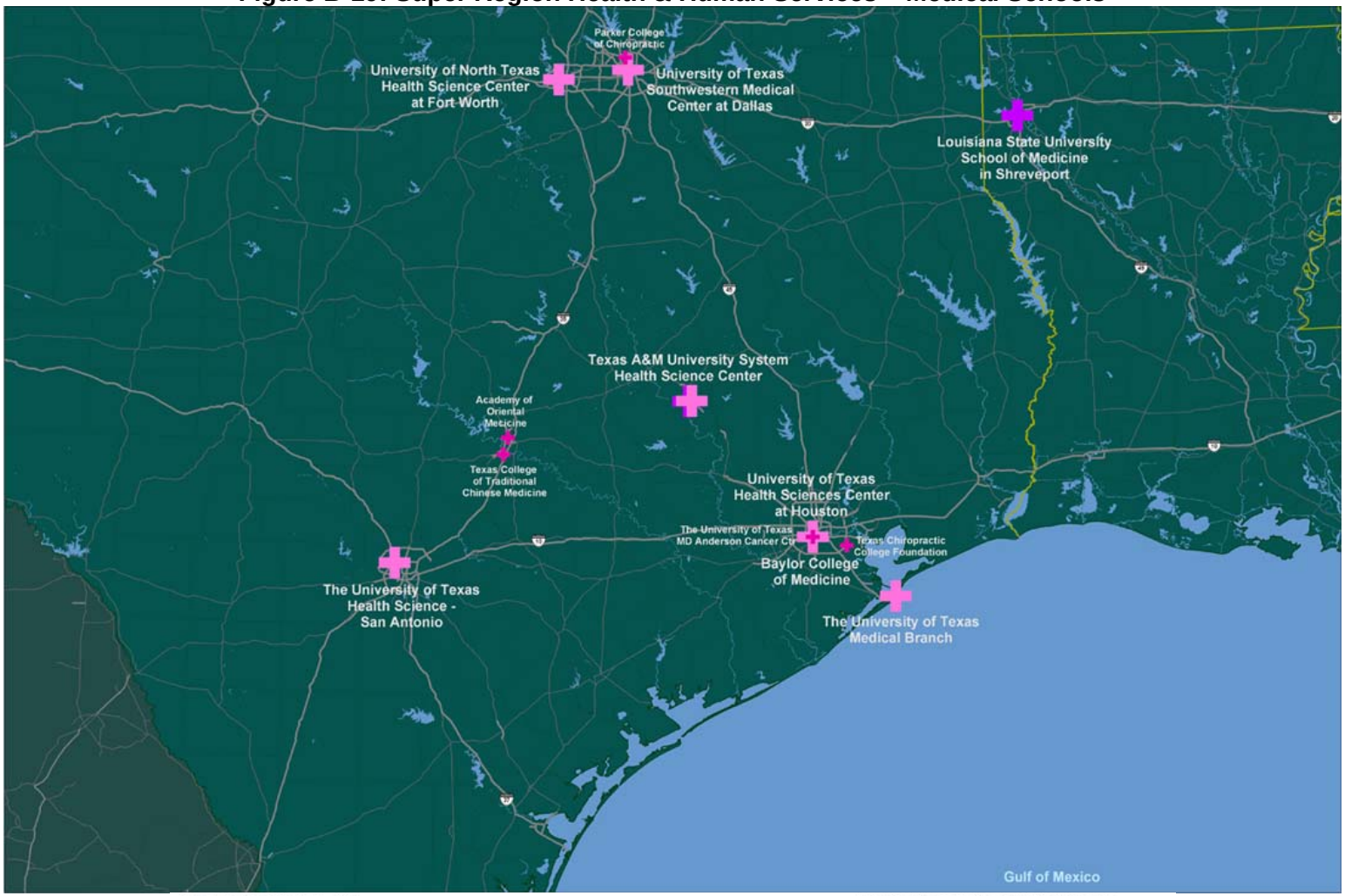

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Figure B-20: Super Region Economic Development / Business – Trade Areas

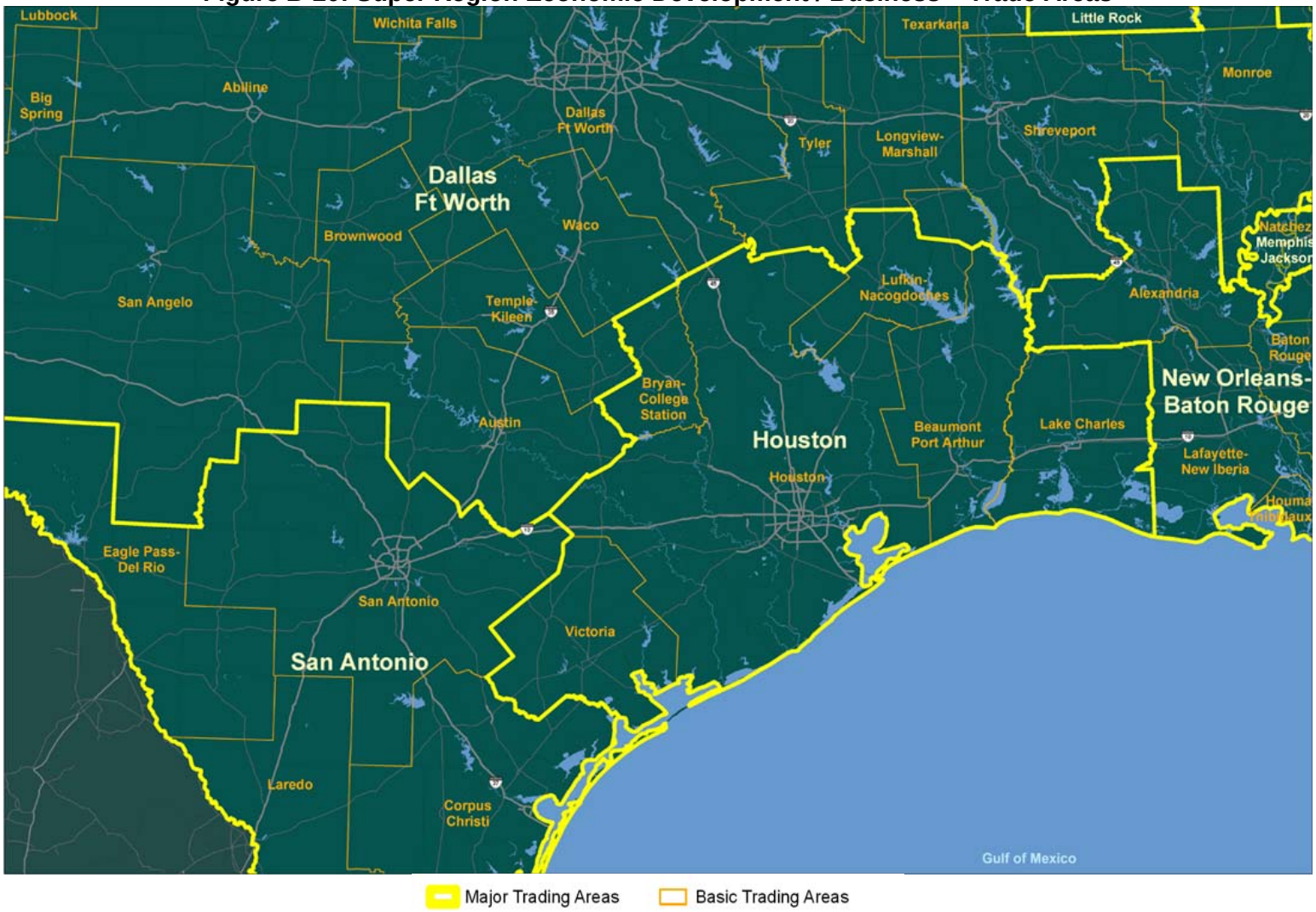

Figure B-21: Super Region Economic Development / Business – Gross Metropolitan Product

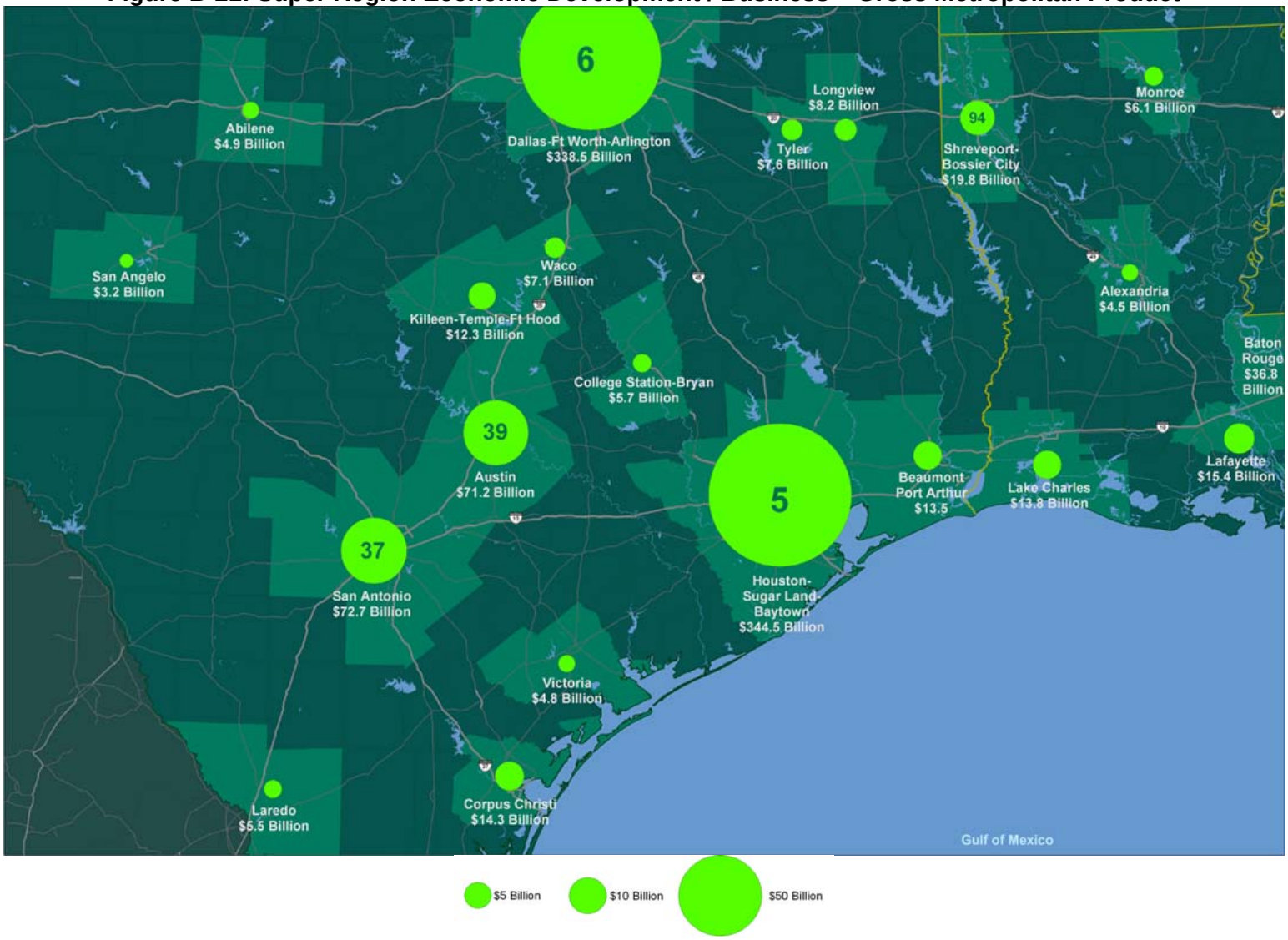

Figure B-22: San Antonio Region

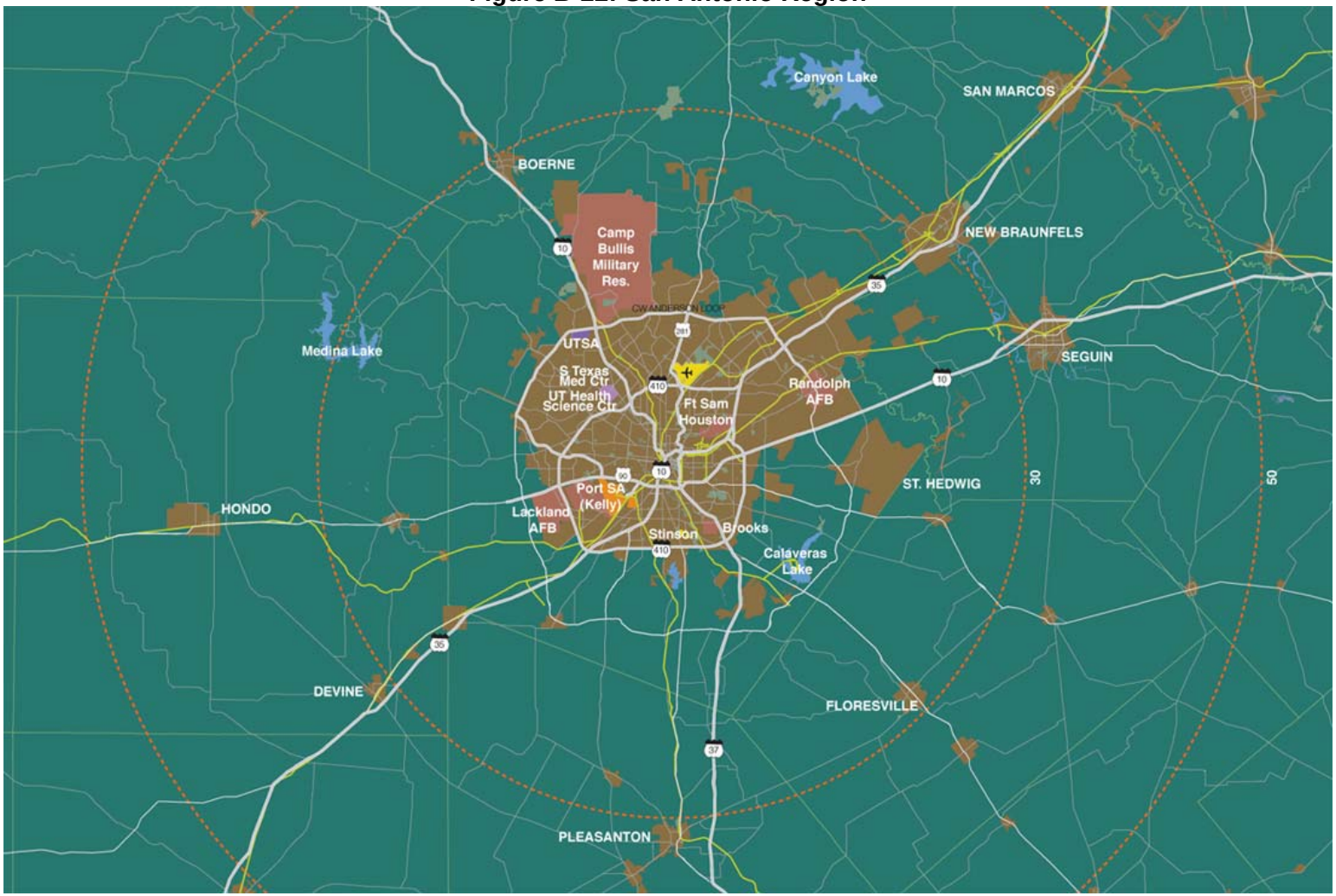

Figure B-23: Region – Environment – Edwards Aquifer Zones

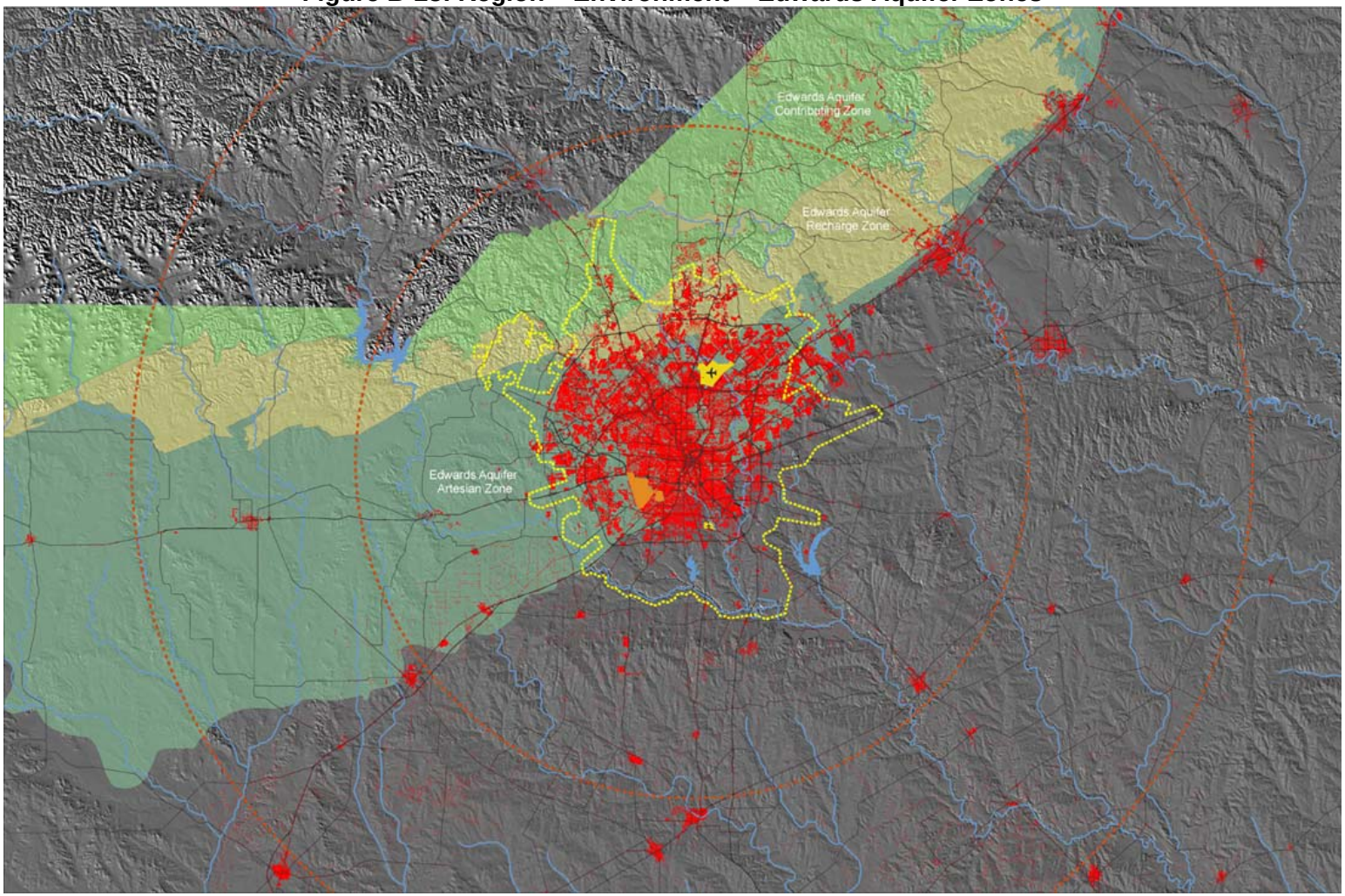

Figure B-24: Region – Transportation / Logistics / Infrastructure – Traffic Counts

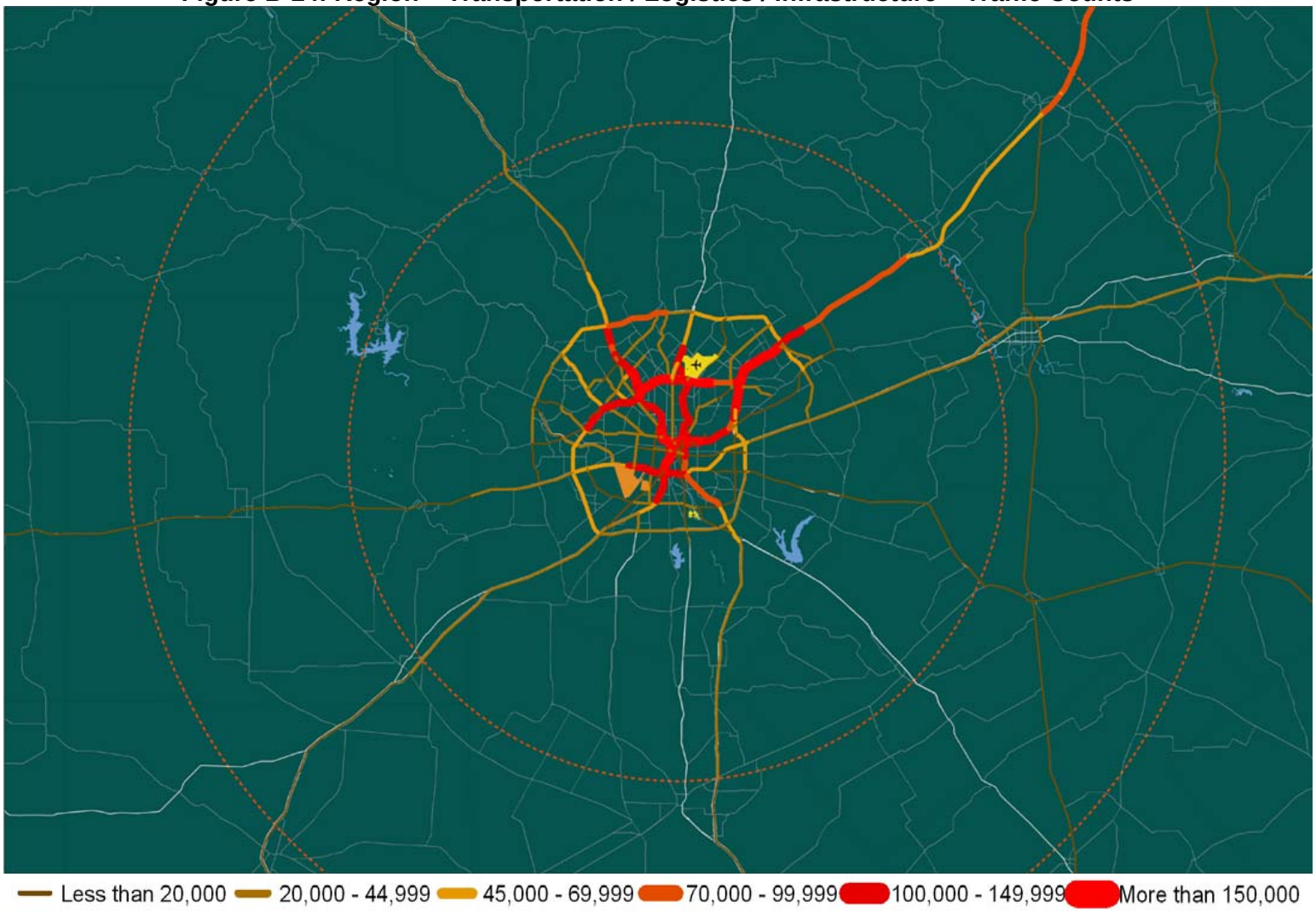

Figure B-25: Region – Urbanization / Demographics – Median House Value, 2000

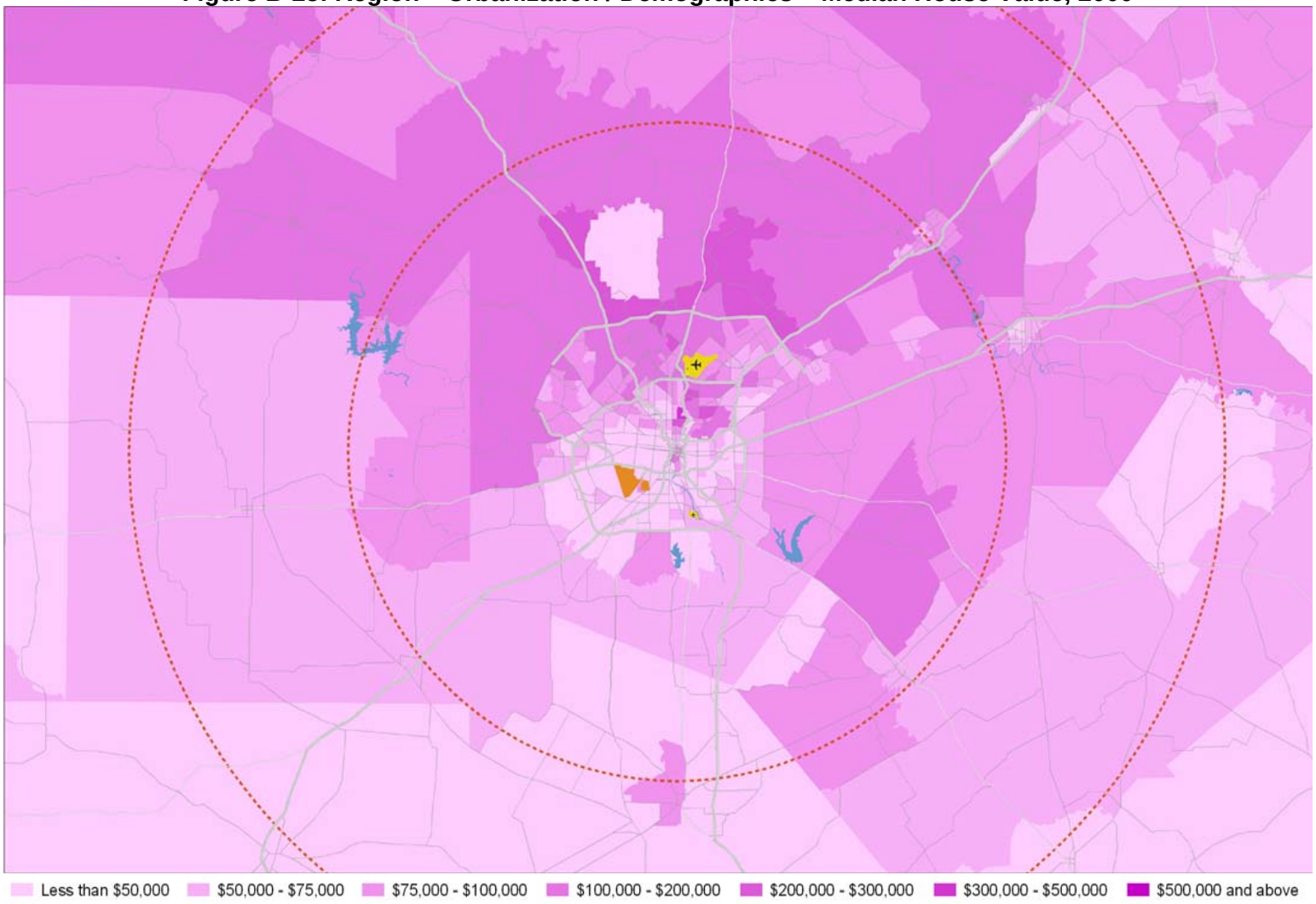

Figure B-26: Region – Urbanization / Demographics – Median Household Income, 2000

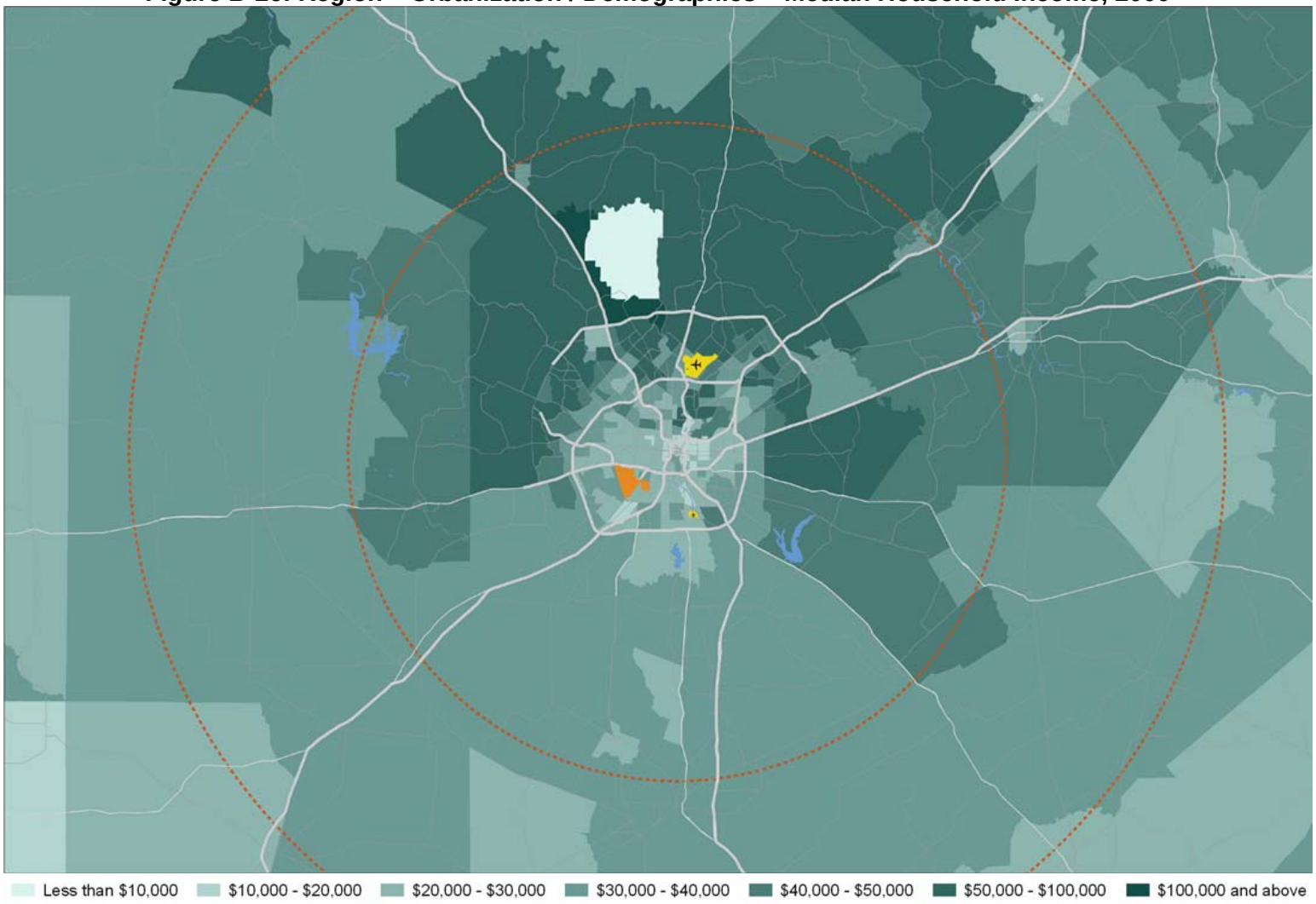

Figure B-27: Region – Real Estate – Office Markets

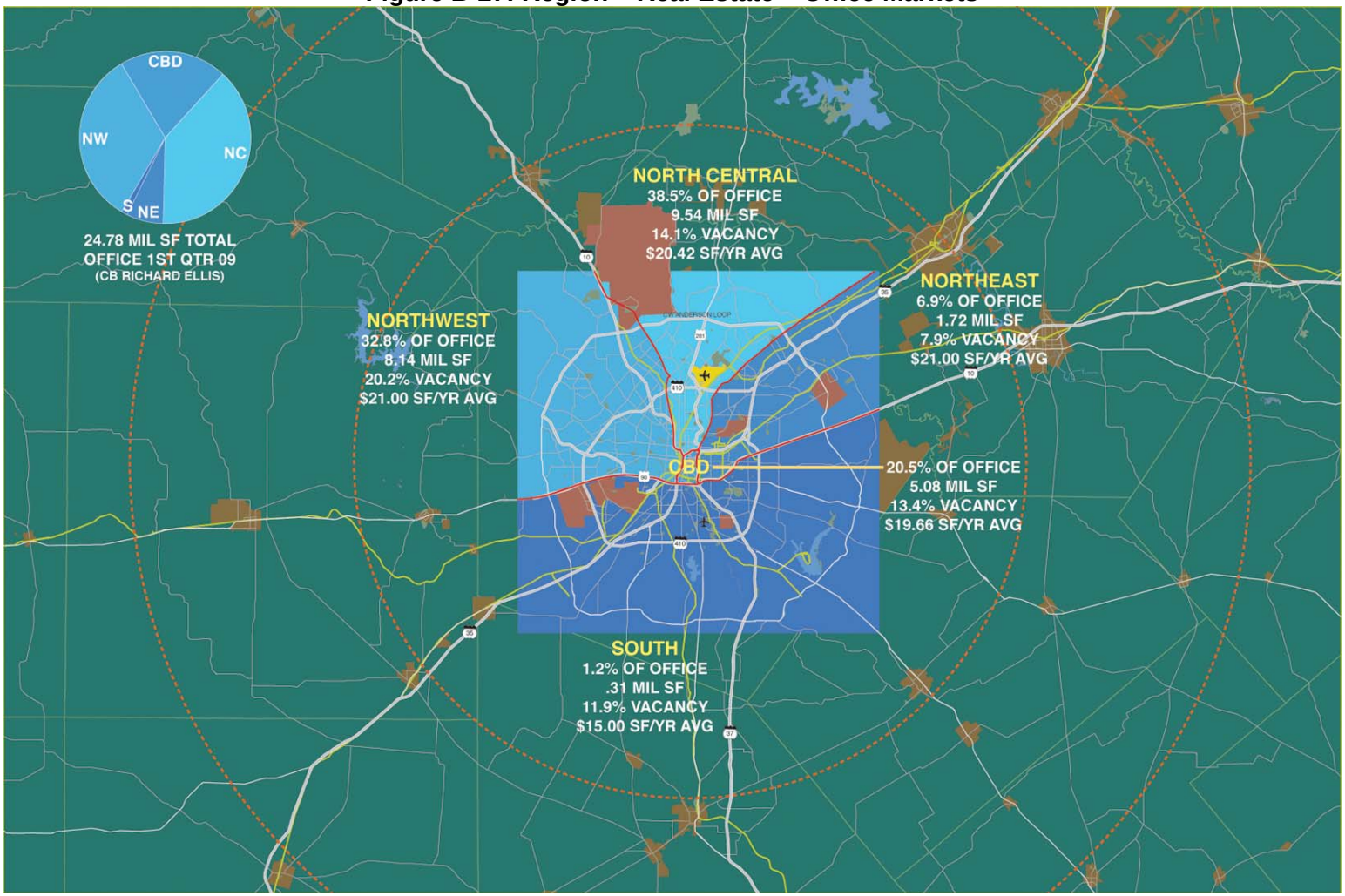

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Figure B-28: Region – Real Estate – Industrial Markets

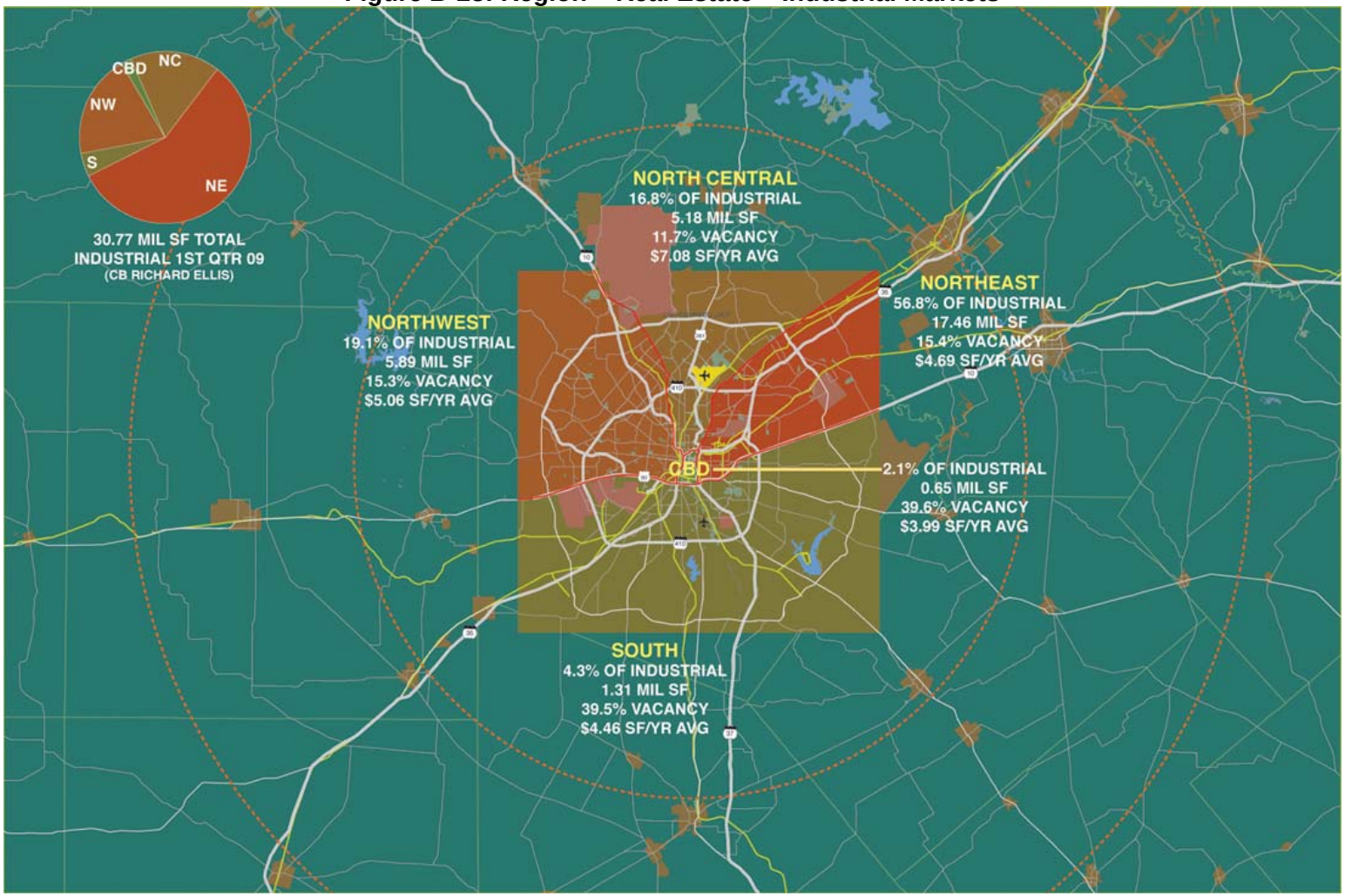


Figure B-29: San Antonio Metro

Figure B-30: Metro – Transportation / Logistics / Infrastructure – Traffic Counts

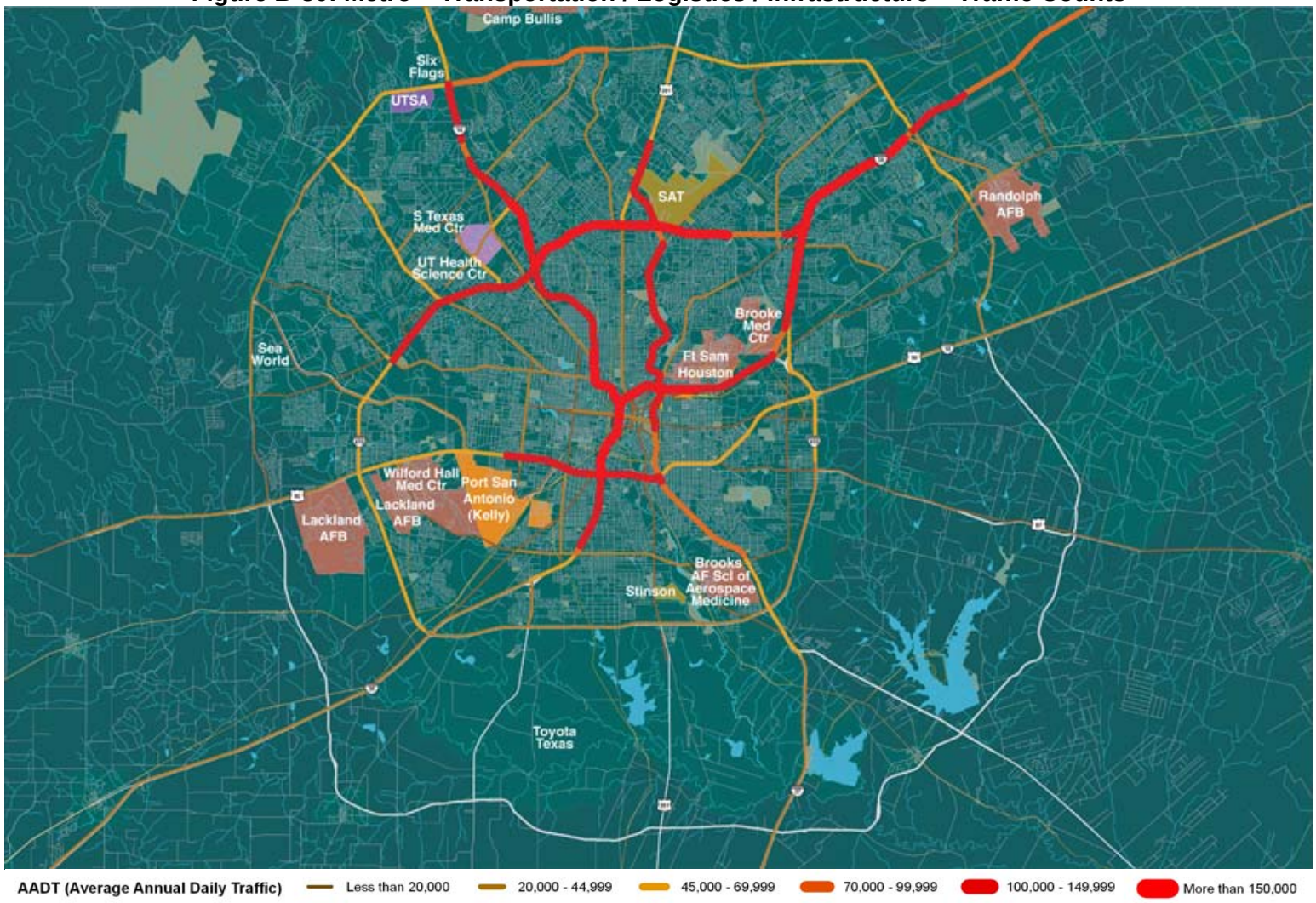


Figure B-31: Metro – Transportation / Logistics / Infrastructure – Truck Flows

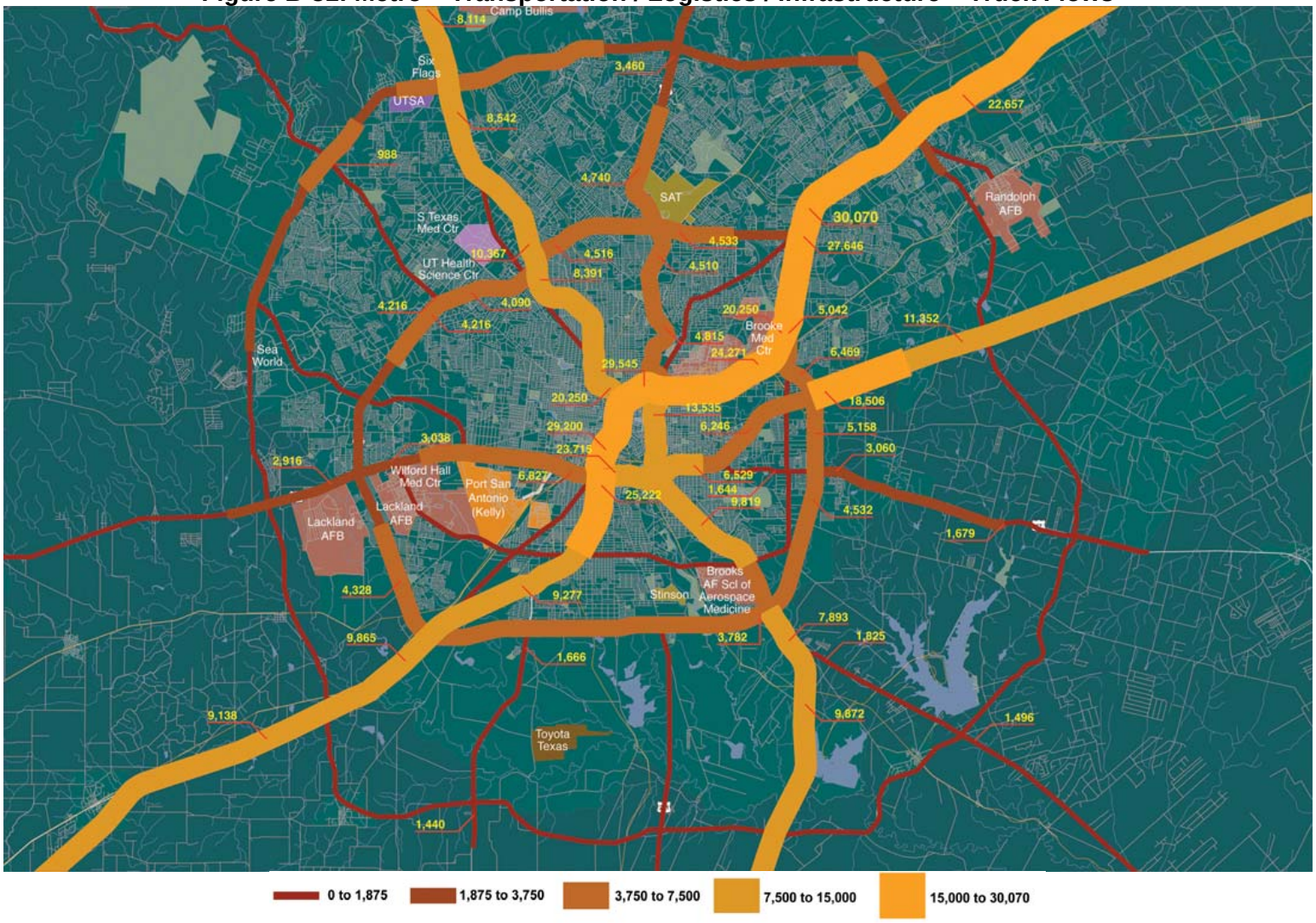


Figure B-32: San Antonio Northeast Quadrant

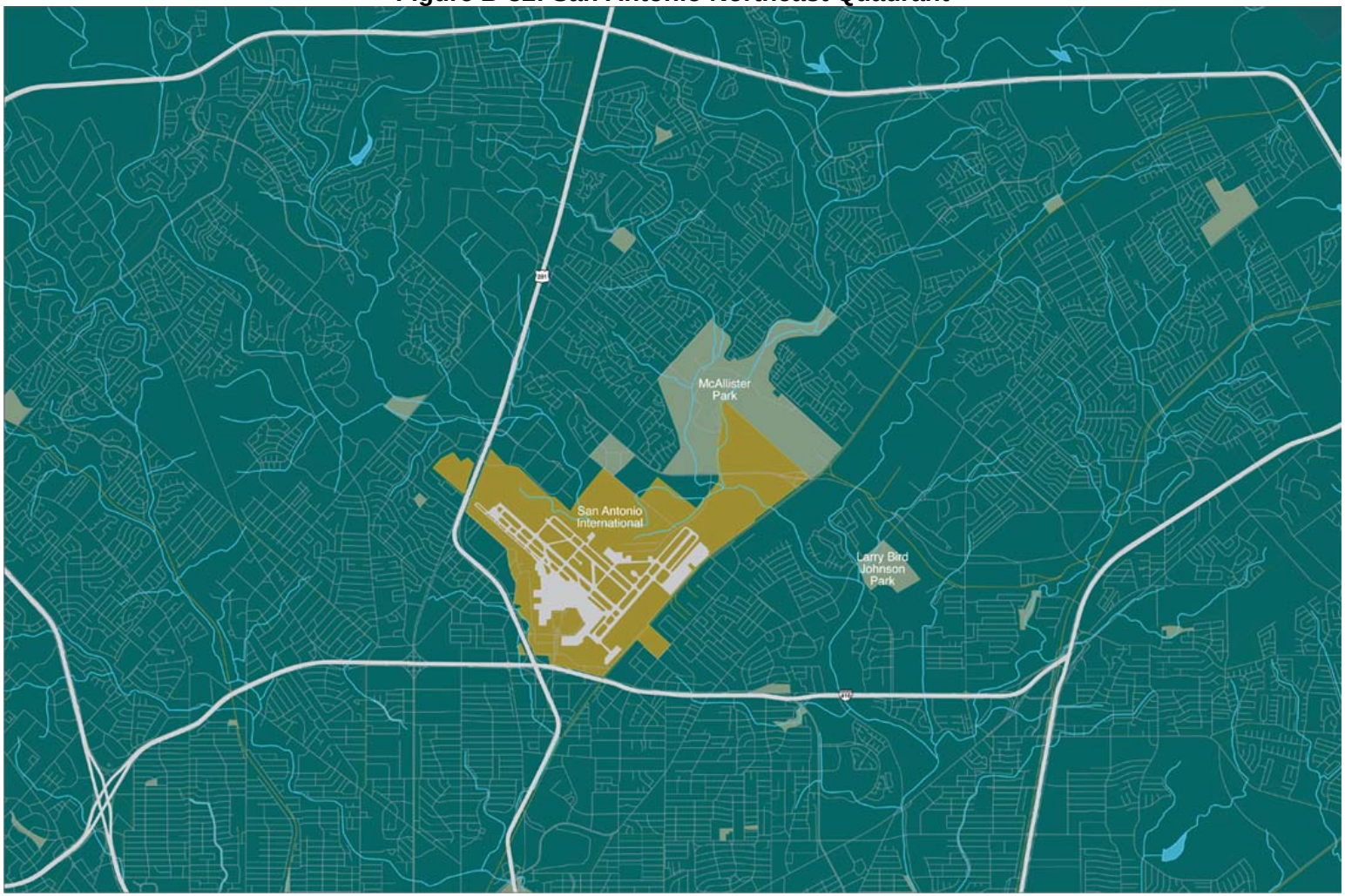
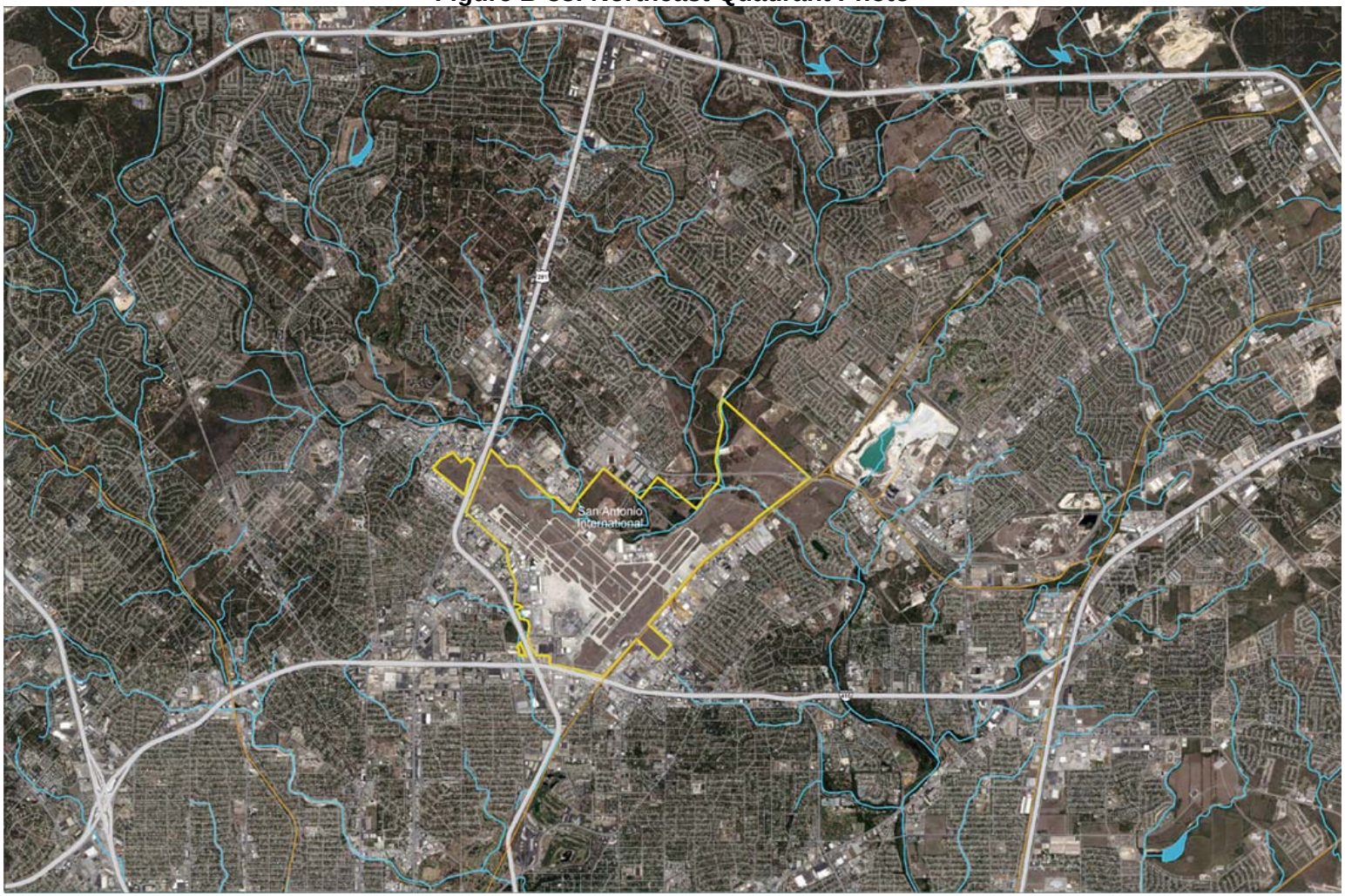


Figure B-33: Northeast Quadrant Photo



APPENDIX C

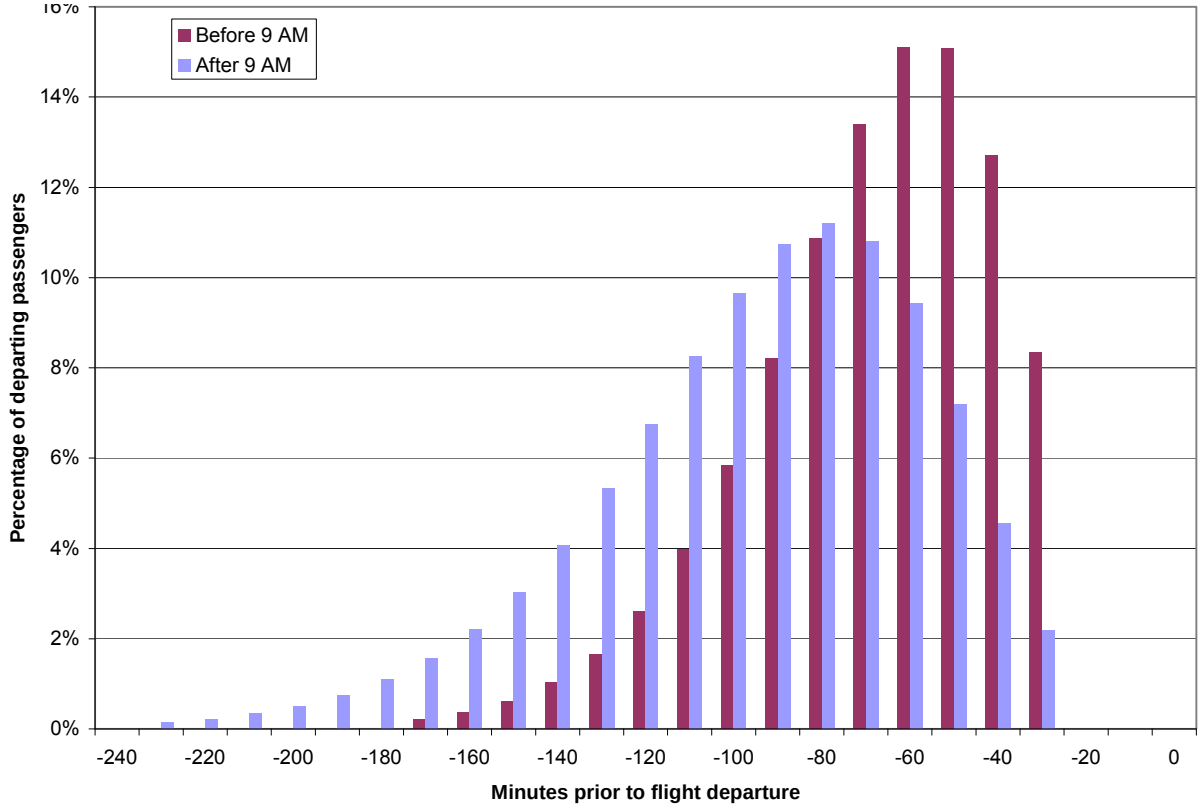
GATE MODEL AND PASSENGER FLOWS ASSUMPTIONS

Detailed flight schedules representing passenger airline flight activity for an ADPM were prepared based on the Master Plan forecast for 2015, 2020 and 2030. For consistency with the forecast, the following assumptions were used to calculate the passenger flows:

- Average load factor: 80 percent
- O&D percentage: 97 percent in 2015 and 2020, 96 percent in 2030

In addition, two different earliness distributions were applied to flights departing before and after 9 a.m. to generate passenger flows. **Figure C-1** depicts the earliness distributions used in the analysis.

Figure C-1: Earliness Distributions



Source: Jacobs Consultancy

Terminal assignments for each of the milestone years were determined based on current assignments and airport staff inputs. The assignments are shown in **Table C-1**.

Table C-1: Projected Terminal Assignments for 2015 - 2020, and 2030 Flight Schedules

Terminal Assignments for 2015 - 2020	
Terminal A:	- Aeromexico (AM) - AirTran Airways (FL) - American Airlines (AA) – International flights only - Delta (DL)/ Northwest Airlines (NW) - Frontier (F9) - jetBlue (B6) - Mexicana (MX) - Southwest (WN) - Spirit Airlines (NK) - US Airways (US) - Volaris (Y4)
Terminal B	- American Airlines (AA) – Domestic flights only - Continental (CO) - United (UA)
Terminal Assignments for 2030	
Terminal A:	- AirTran Airways (FL) - Delta (DL)/ Northwest Airlines (NW) - jetBlue (B6) - Southwest (WN) - Spirit Airlines (NK) - US Airways (US)
Terminal B	- American Airlines (AA) – Domestic flights only - Continental (CO) - United (UA)
Terminal C	- Aeromexico (AM) - American Airlines (AA) – International flights only - Frontier (F9) - Mexicana (MX) - Volaris (Y4)

APPENDIX D

ROADWAY SIMULATION MODELING

D.1 INTRODUCTION

To help evaluate the San Antonio International Airport (SAT) roadway system for projected future years of operation, in conjunction with the master plan, simulation modeling has been used. To calibrate the modeling effort, an "existing conditions" model was first developed and tested to compare with recent traffic counts. The future models for years 2015, 2020, and 2030 were then created and tested with expanded air passenger activities related to the master plan forecasts.

This appendix to the Airport Facilities Requirements report includes the following:

- Calibration model input assumptions
- Calibration model results
- Future year modeling assumptions
- Summary of roadway capacity and level-of-service methodology

D.2 CALIBRATION MODEL INPUT ASSUMPTIONS

The key inputs for the roadway modeling are as follows:

- Flight schedule of arriving and departing aircraft and related passengers,
- Mix of origin/destination (O/D) passengers versus connecting passengers,
- Distributions of times before and after flights for ground access trips,
- Mode splits of passengers to ground access vehicle types,
- Vehicle occupancy ratios,
- Other "populations" such as meeters/greeters, employees, deliveries, etc.,
- Roadway network definition, with speeds, lane counts, and other parameters,
- Routes taken by the various populations and vehicle types.

A 2008 flight schedule defined as the basis for average day peak month "existing conditions" was used for the model, along with the limited connecting passenger ratios defined below and the trip time distributions of **Figure D-1** to generate the time of day profiles for originating and terminating passenger volumes by 15 minute interval given in **Figure D-2**.

Connecting ratios: about 6% overall (0% originating before 8 am, 8% after and 0% terminating after 9:30 pm, 8% before)

Passenger lead/lag times (distribution of times when using roadways compared with scheduled flight times) were not directly available for SAT, so similar characteristics from other recently modeled airports were used. Similarly, limited data have been made available on other SAT historical passenger characteristics, so a blend of SAT and other airport data have been used. For example, the overall mode splits of **Table D-1** were based on SAT surveys, but the time of day variation was based on the characteristics of other similar airports.

Figure D-1: Passenger Lead/Lag Times

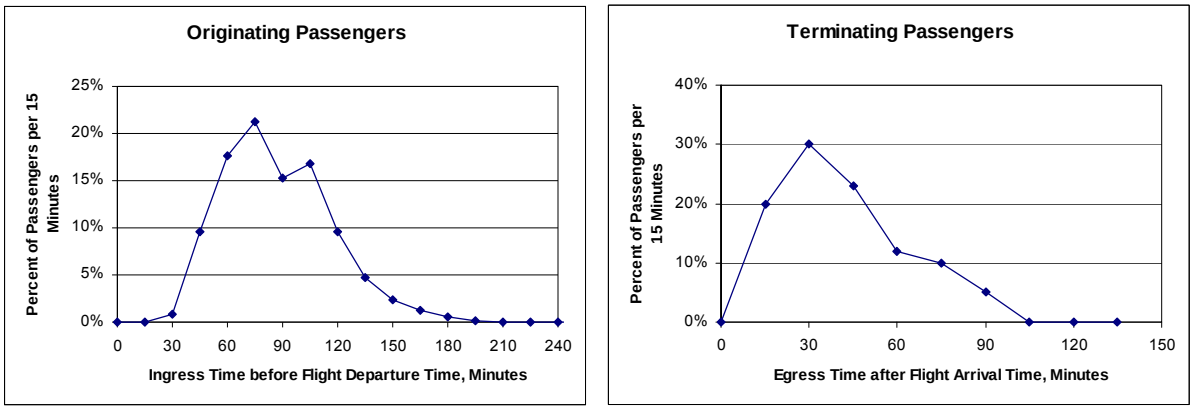


Figure D-2: Calibration Model Originating and Terminating Passenger Profiles

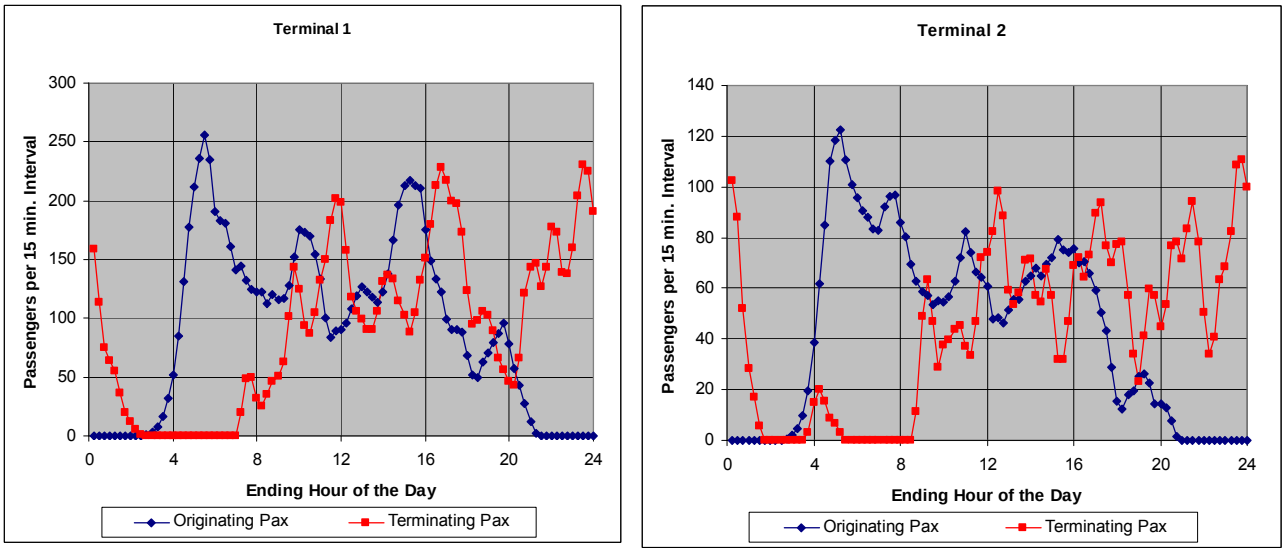


Table D-1: Mode splits (percent of passengers by mode)

Originating Passengers

Originating Pax Mode Split Time of Day Variation

End Hr.	Curb	Hourly park	Daily park	Long term park	Off-airport park	Rent	Taxi	Shared ride	Hotel shuttle	Limo	Rail/bus	Other/bus
1	31.0	3.6	16.1	5.8	2.0	12.9	20.0	0.0	5.0	2.0	1.0	0.7
2	31.0	3.6	16.1	5.8	2.0	12.9	20.0	0.0	5.0	2.0	1.0	0.7
3	31.0	3.6	16.1	5.8	2.0	12.9	20.0	0.0	5.0	2.0	1.0	0.7
4	31.0	3.6	16.1	5.8	2.0	12.9	20.0	0.0	5.0	2.0	1.0	0.7
5	31.0	3.6	16.1	5.8	2.0	12.9	20.0	0.0	5.0	2.0	1.0	0.7
6	31.0	3.6	16.1	5.8	2.0	12.9	20.0	0.0	5.0	2.0	1.0	0.7
7	31.0	3.6	16.1	5.8	2.0	12.9	20.0	0.0	5.0	2.0	1.0	0.7
8	31.0	3.6	16.1	5.8	2.0	12.9	20.0	0.0	5.0	2.0	1.0	0.7
9	31.0	3.6	16.1	5.8	2.0	12.9	20.0	0.0	5.0	2.0	1.0	0.7
10	31.0	5.7	6.7	2.3	2.0	22.2	20.0	0.0	5.0	2.0	1.5	1.5
11	31.0	5.7	6.7	2.3	2.0	22.2	20.0	0.0	5.0	2.0	1.5	1.5
12	31.0	5.7	6.7	2.3	2.0	22.2	20.0	0.0	5.0	2.0	1.5	1.5
13	31.0	5.7	6.7	2.3	2.0	22.2	20.0	0.0	5.0	2.0	1.5	1.5
14	31.0	5.7	6.7	2.3	2.0	22.2	20.0	0.0	5.0	2.0	1.5	1.5
15	31.0	5.7	6.7	2.3	2.0	22.2	20.0	0.0	5.0	2.0	1.5	1.5
16	35.3	5.7	2.6	2.9	2.0	22.0	20.0	0.0	5.0	2.0	2.3	0.3
17	35.3	5.7	2.6	2.9	2.0	22.0	20.0	0.0	5.0	2.0	2.3	0.3
18	35.3	5.7	2.6	2.9	2.0	22.0	20.0	0.0	5.0	2.0	2.3	0.3
19	35.3	5.7	2.6	2.9	2.0	22.0	20.0	0.0	5.0	2.0	2.3	0.3
20	35.3	5.7	2.6	2.9	2.0	22.0	20.0	0.0	5.0	2.0	2.3	0.3
21	35.3	5.7	2.6	2.9	2.0	22.0	20.0	0.0	5.0	2.0	2.3	0.3
22	35.3	5.7	2.6	2.9	2.0	22.0	20.0	0.0	5.0	2.0	2.3	0.3
23	35.3	5.7	2.6	2.9	2.0	22.0	20.0	0.0	5.0	2.0	2.3	0.3
24	35.3	5.7	2.6	2.9	2.0	22.0	20.0	0.0	5.0	2.0	2.3	0.3

Terminating Passengers

Terminating Pax Mode Split Time of Day Variation

End Hr.	Curb	Hourly park	Daily park	Long term park	Off-airport park	Rent	Taxi	Shared ride	Hotel shuttle	Limo	Rail/bus	Other/bus
1	25.0	11.5	0.8	4.6	2.0	27.6	20.0	0.0	5.0	2.0	1.0	0.7
2	25.0	11.5	0.8	4.6	2.0	27.6	20.0	0.0	5.0	2.0	1.0	0.7
3	25.0	11.5	0.8	4.6	2.0	27.6	20.0	0.0	5.0	2.0	1.0	0.7
4	25.0	11.5	0.8	4.6	2.0	27.6	20.0	0.0	5.0	2.0	1.0	0.7
5	25.0	11.5	0.8	4.6	2.0	27.6	20.0	0.0	5.0	2.0	1.0	0.7
6	25.0	11.5	0.8	4.6	2.0	27.6	20.0	0.0	5.0	2.0	1.0	0.7
7	25.0	11.5	0.8	4.6	2.0	27.6	20.0	0.0	5.0	2.0	1.0	0.7
8	25.0	11.5	0.8	4.6	2.0	27.6	20.0	0.0	5.0	2.0	1.0	0.7
9	25.0	11.5	0.8	4.6	2.0	27.6	20.0	0.0	5.0	2.0	1.0	0.7
10	25.0	13.2	9.0	3.9	2.0	16.7	20.0	0.0	5.0	2.0	1.5	1.5
11	25.0	13.2	9.0	3.9	2.0	16.7	20.0	0.0	5.0	2.0	1.5	1.5
12	25.0	13.2	9.0	3.9	2.0	16.7	20.0	0.0	5.0	2.0	1.5	1.5
13	25.0	13.2	9.0	3.9	2.0	16.7	20.0	0.0	5.0	2.0	1.5	1.5
14	25.0	13.2	9.0	3.9	2.0	16.7	20.0	0.0	5.0	2.0	1.5	1.5
15	25.0	13.2	9.0	3.9	2.0	16.7	20.0	0.0	5.0	2.0	1.5	1.5
16	25.0	13.6	9.2	3.9	2.0	16.7	20.0	0.0	5.0	2.0	2.3	0.3
17	25.0	13.6	9.2	3.9	2.0	16.7	20.0	0.0	5.0	2.0	2.3	0.3
18	25.0	13.6	9.2	3.9	2.0	16.7	20.0	0.0	5.0	2.0	2.3	0.3
19	25.0	13.6	9.2	3.9	2.0	16.7	20.0	0.0	5.0	2.0	2.3	0.3
20	25.0	13.6	9.2	3.9	2.0	16.7	20.0	0.0	5.0	2.0	2.3	0.3
21	25.0	13.6	9.2	3.9	2.0	16.7	20.0	0.0	5.0	2.0	2.3	0.3
22	25.0	13.6	9.2	3.9	2.0	16.7	20.0	0.0	5.0	2.0	2.3	0.3
23	25.0	13.6	9.2	3.9	2.0	16.7	20.0	0.0	5.0	2.0	2.3	0.3
24.0	25.0	13.6	9.2	3.9	2.0	16.7	20.0	0.0	5.0	2.0	2.3	0.3

Vehicle occupancy ratios (air passengers per vehicle) were assumed to be as follows: Shuttle buses: 3.0, other buses: 5.0, all other (autos, taxis, etc.) 1.2.

Typical directional distributions were estimated, based on the observed actual traffic volumes:

Route	Entering	Exiting
Airport Blvd.	55%	55%
W. Terminal Dr.	33%	45%
SH 281 Flyover	12%	0%

Without available actual SAT survey data, curb dwells were assumed to be 1.5 minutes for departures and 2.0 minutes for arrivals, based on overall industry typical characteristics and the assumption of effective enforcement of drop off and pick up only rules.

Non-passenger related trips (employees, GA, cargo, etc.) were based on actual traffic counts on related roadways.

The roadway network was as shown in **Figures D-3** and **D-4** with the indicated free flow speeds and lane counts, except that the lane count where all exiting traffic merges was assumed to be eight lanes, narrowing to seven, and then six and five. Note that the departures level road is shifted in the portrayal, to show it separately from the arrivals roads.

Figure D-3: Roadway Network Speeds

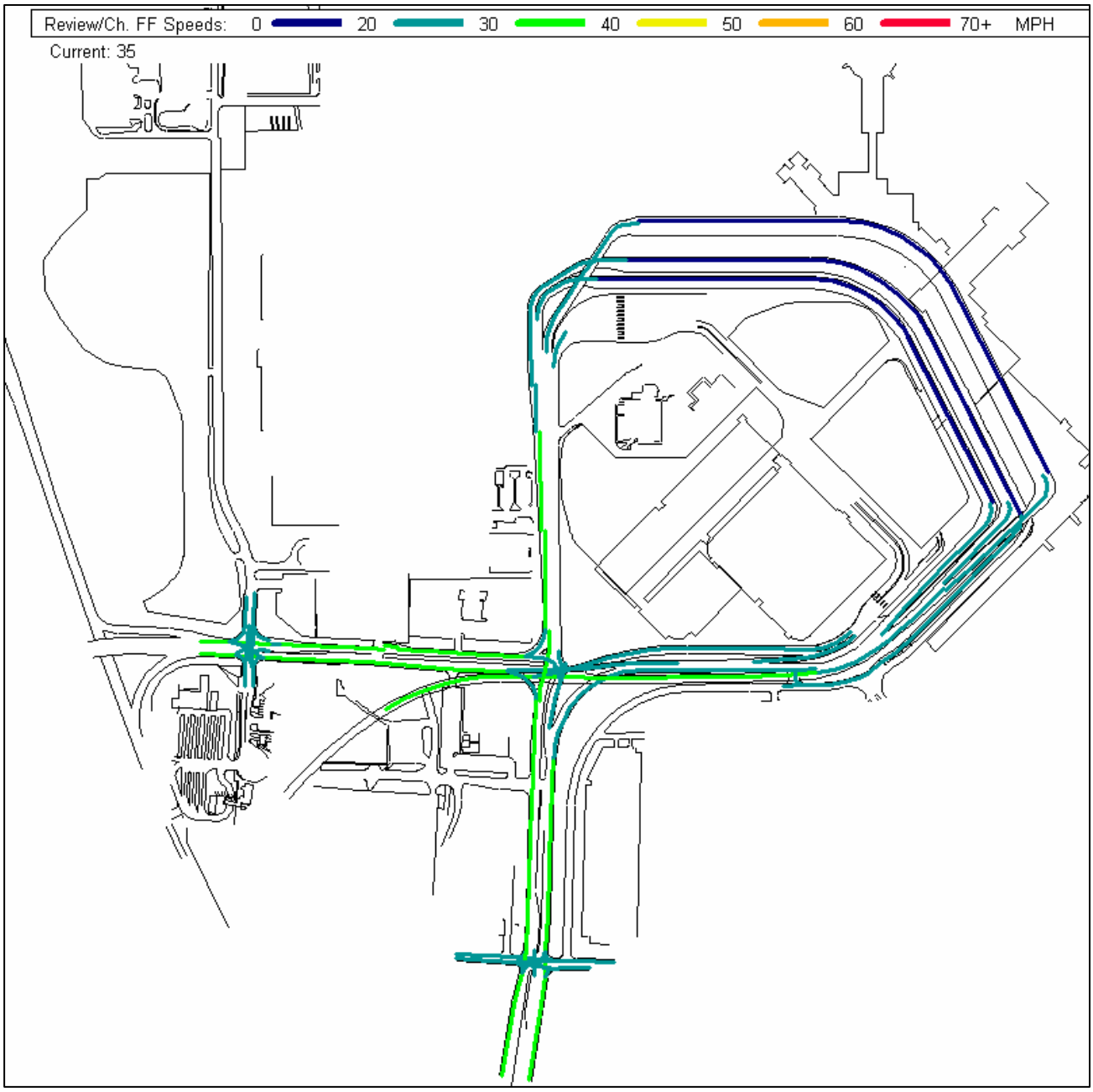
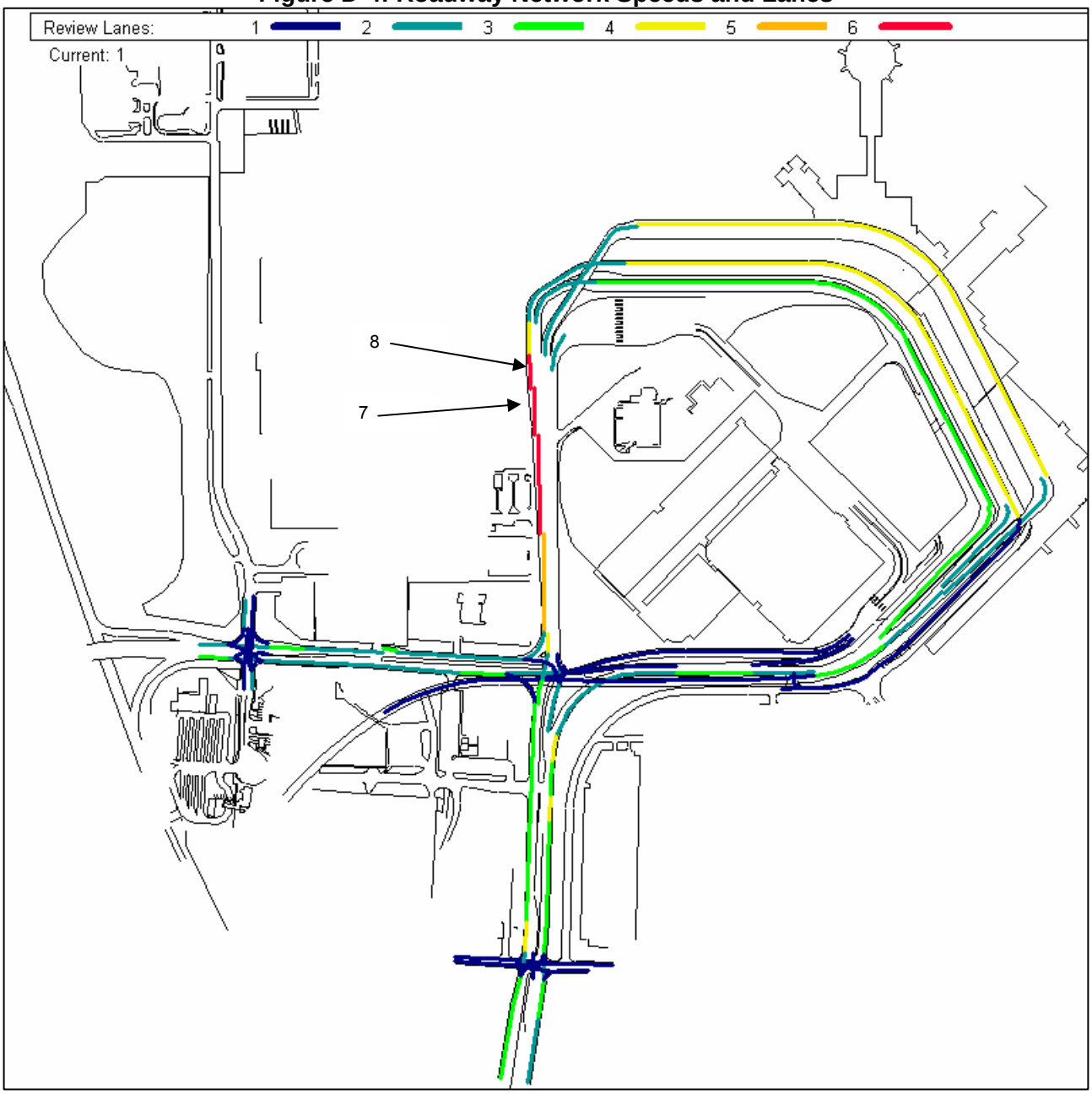
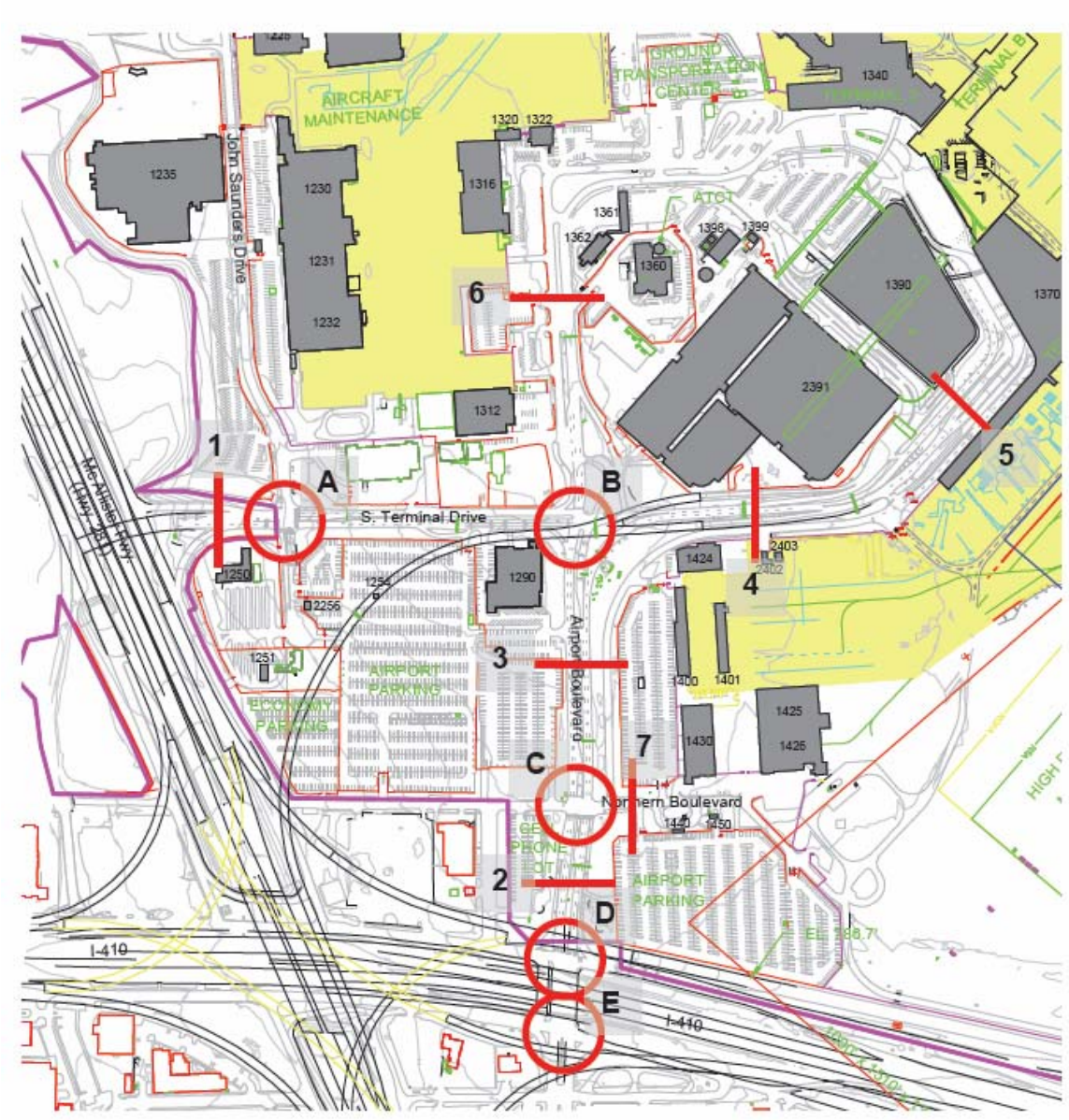


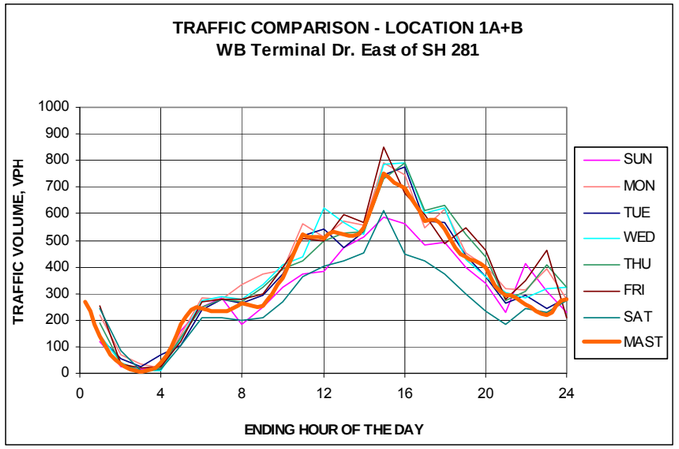
Figure D-4: Roadway Network Speeds and Lanes

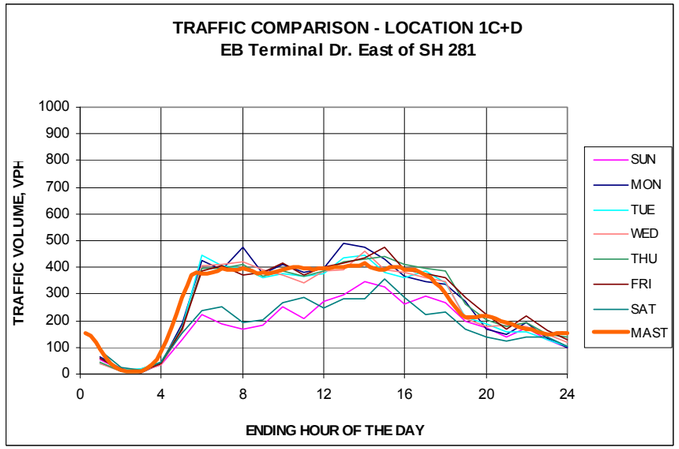


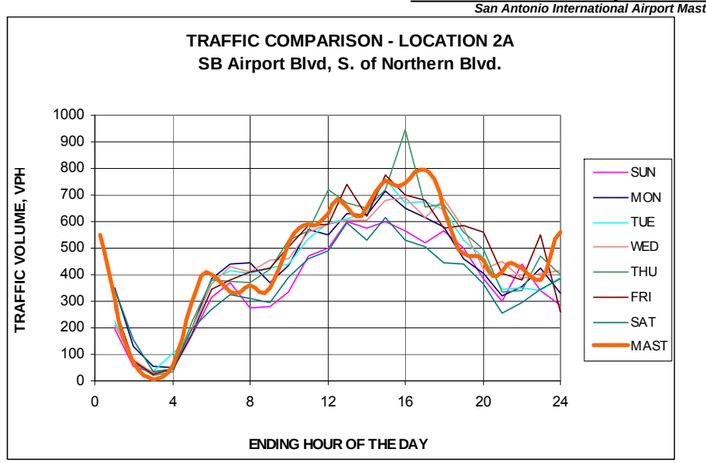
D.3 ROADWAY CALIBRATION MODEL RESULTS

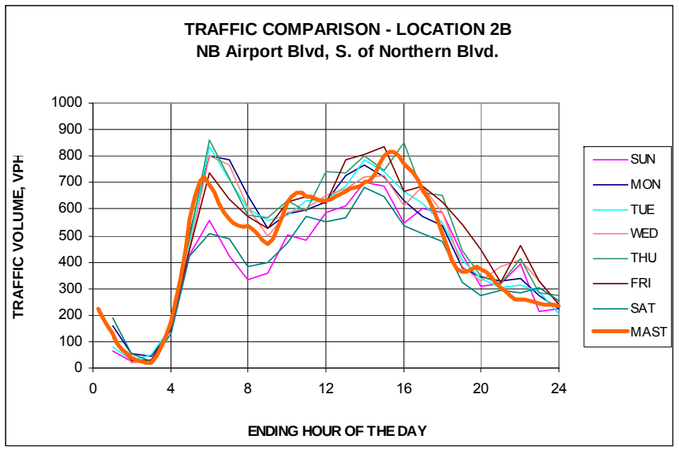
Comparisons between the recent traffic counts at SAT and the results of a MAST model for the "baseline" case are given in the following graphs. Overall, the agreement is very good and forms the basis of the modeling of future conditions. The differences that are apparent in some of the locations approaching the terminals are attributable to the differences in the curb arrangements between the current construction and the final configuration, as represented in the baseline definition (e.g., most Terminal 2 traffic now bypasses Terminal 1, but with Terminals A and B in operation with the baseline configuration, all traffic will go past Terminal A). The locations of the recent traffic counts (1-7), which are addressed in the following graphs, are shown below.

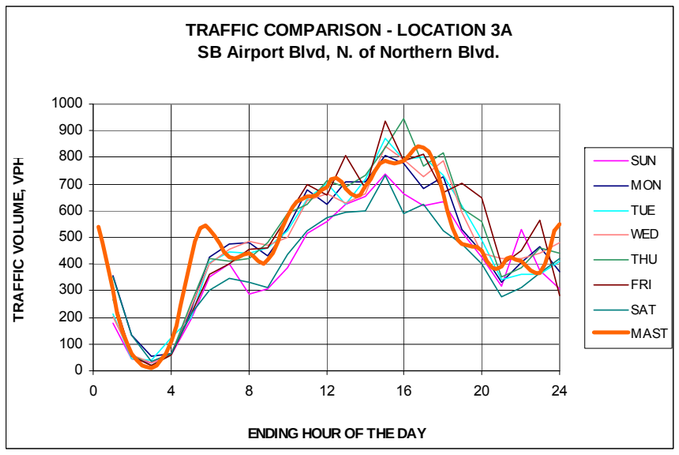


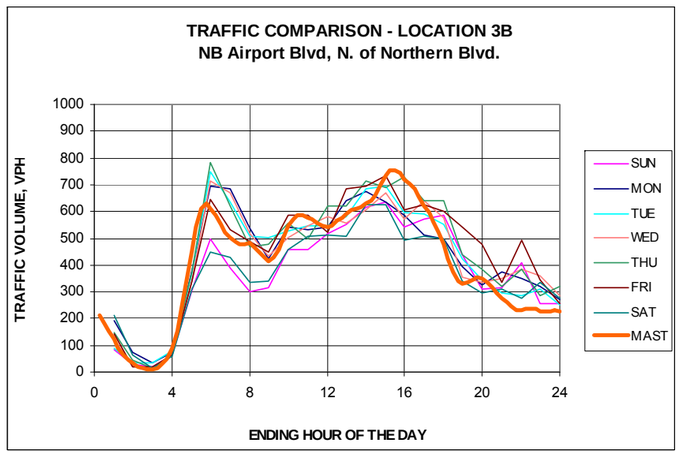

TRAFFIC COMPARISON - LOCATION 1A+B
WB Terminal Dr. East of SH 281
TRAFFIC VOLUME, VPH
ENDING HOUR OF THE DAY
SUN
MON
TUE
WED
THU
FRI
SAT
MAST

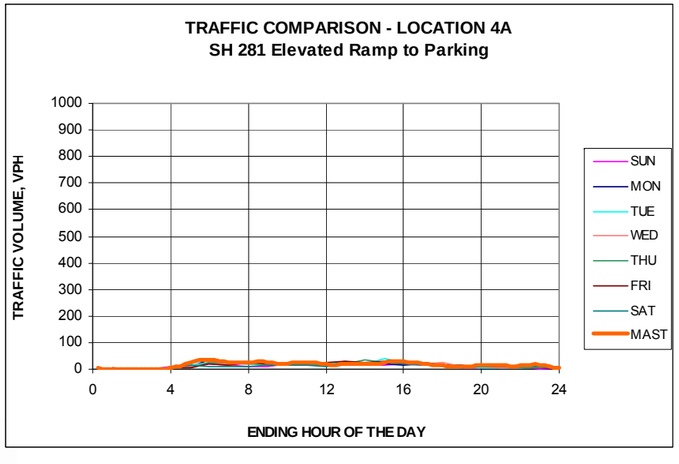

TRAFFIC COMPARISON - LOCATION 1C+D
EB Terminal Dr. East of SH 281
TRAFFIC VOLUME, VPH
ENDING HOUR OF THE DAY
SUN
MON
TUE
WED
THU
FRI
SAT
MAST

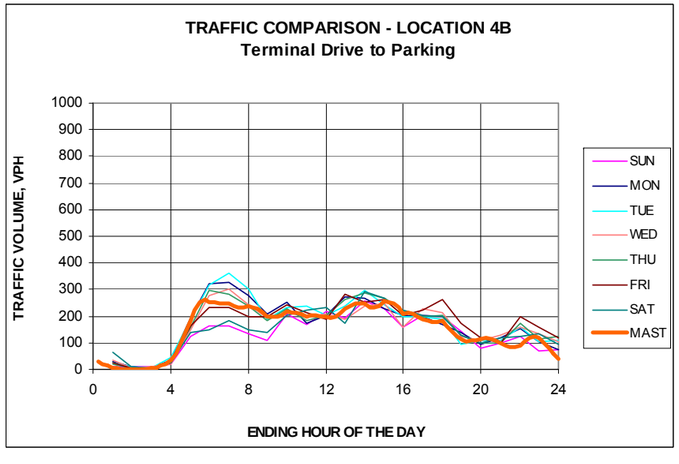

TRAFFIC COMPARISON - LOCATION 2A
SB Airport Blvd, S. of Northern Blvd.
TRAFFIC VOLUME, VPH
ENDING HOUR OF THE DAY
SUN
MON
TUE
WED
THU
FRI
SAT
MAST

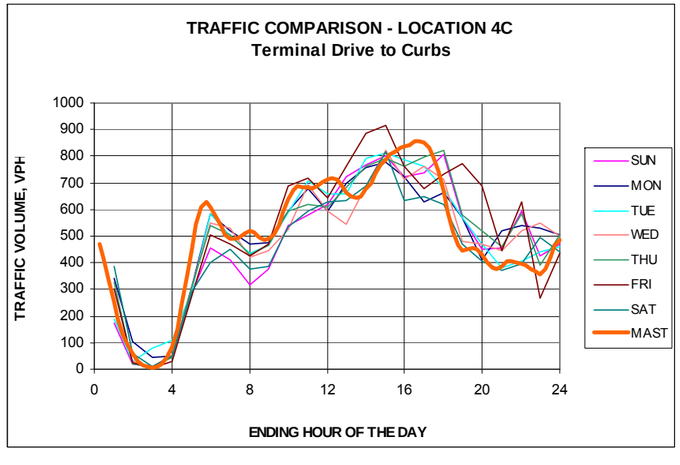

TRAFFIC COMPARISON - LOCATION 2B
NB Airport Blvd, S. of Northern Blvd.
TRAFFIC VOLUME, VPH
ENDING HOUR OF THE DAY
SUN
MON
TUE
WED
THU
FRI
SAT
MAST

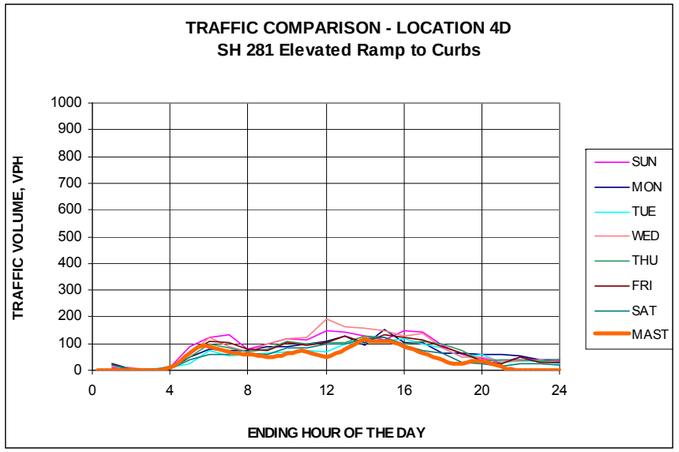

TRAFFIC COMPARISON - LOCATION 3A
SB Airport Blvd, N. of Northern Blvd.
TRAFFIC VOLUME, VPH
ENDING HOUR OF THE DAY
SUN
MON
TUE
WED
THU
FRI
SAT
MAST

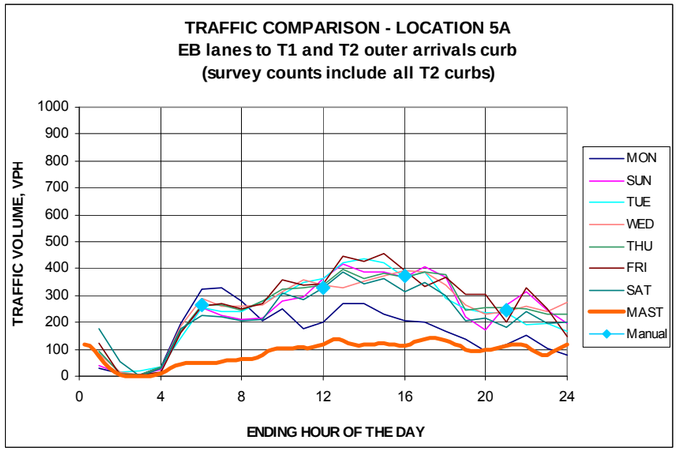

TRAFFIC COMPARISON - LOCATION 3B
NB Airport Blvd, N. of Northern Blvd.
TRAFFIC VOLUME, VPH
ENDING HOUR OF THE DAY
SUN
MON
TUE
WED
THU
FRI
SAT
MAST

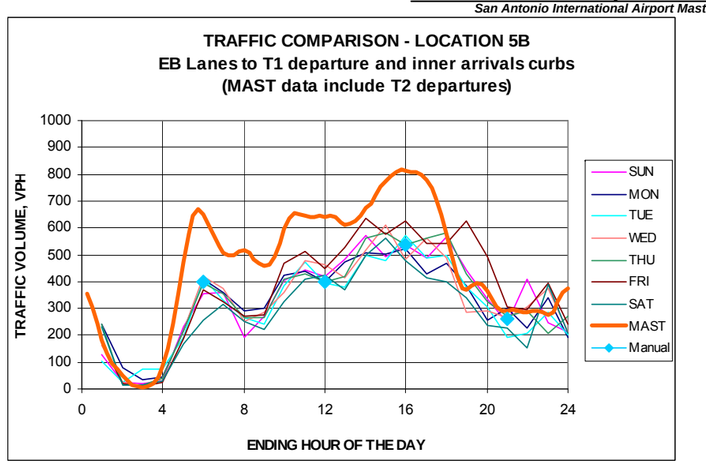

TRAFFIC COMPARISON - LOCATION 4A
SH 281 Elevated Ramp to Parking
TRAFFIC VOLUME, VPH
ENDING HOUR OF THE DAY
SUN
MON
TUE
WED
THU
FRI
SAT
MAST

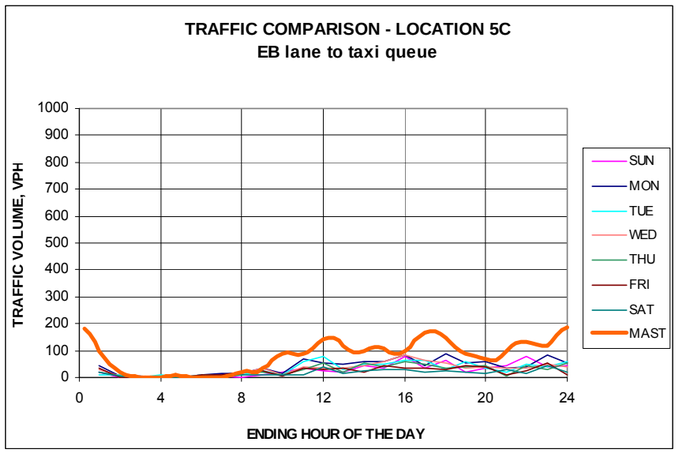

TRAFFIC COMPARISON - LOCATION 4B
Terminal Drive to Parking
TRAFFIC VOLUME, VPH
ENDING HOUR OF THE DAY
SUN
MON
TUE
WED
THU
FRI
SAT
MAST

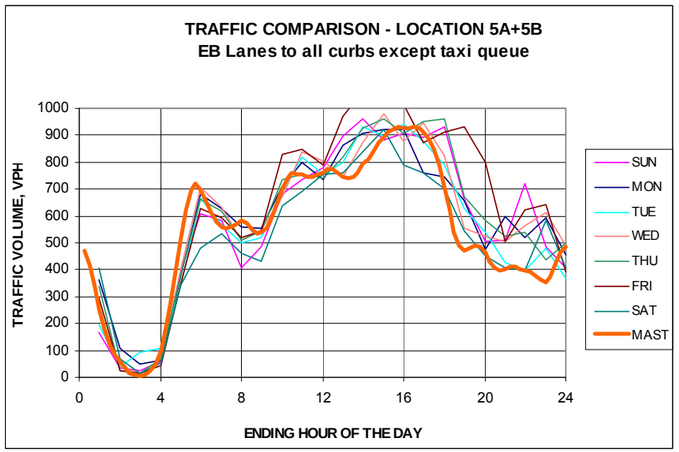

TRAFFIC COMPARISON - LOCATION 4C
Terminal Drive to Curbs
TRAFFIC VOLUME, VPH
ENDING HOUR OF THE DAY
SUN
MON
TUE
WED
THU
FRI
SAT
MAST

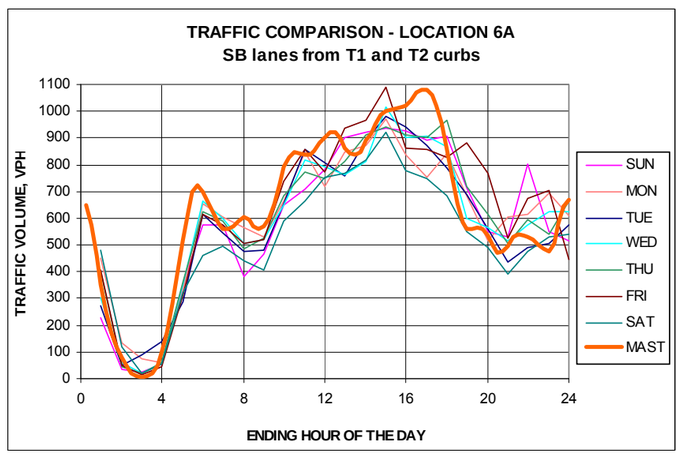


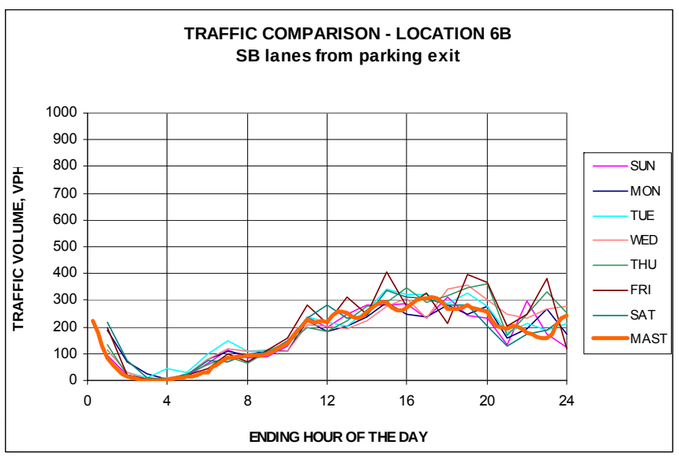


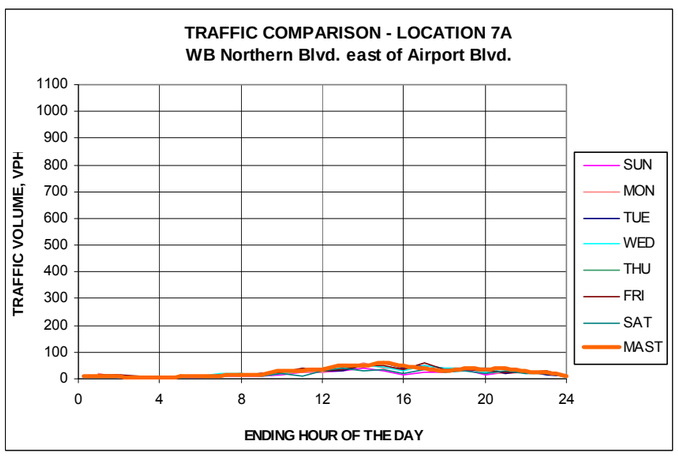


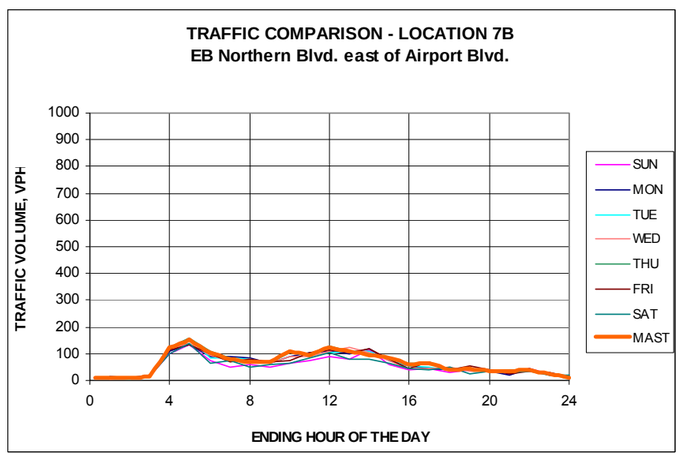












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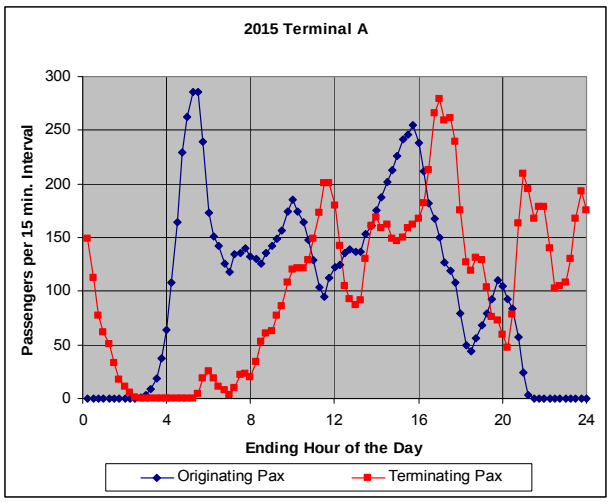
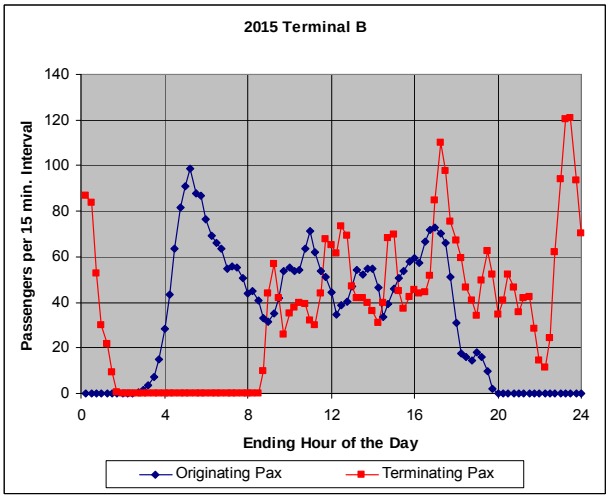
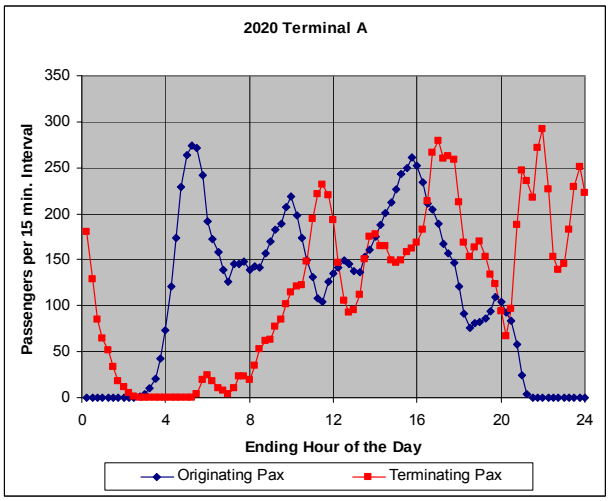
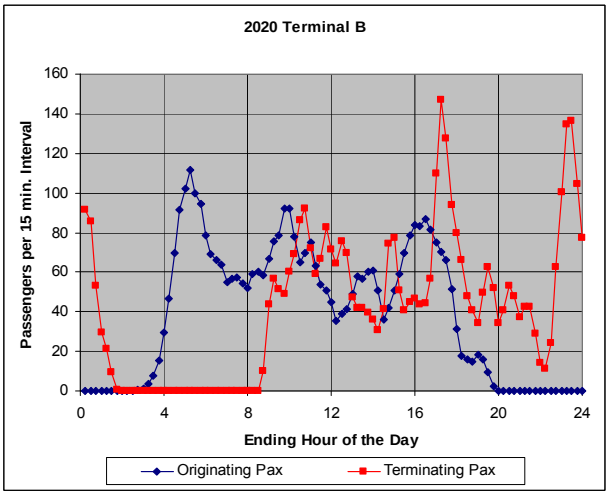
D.4 FUTURE YEAR MODELING ASSUMPTIONS

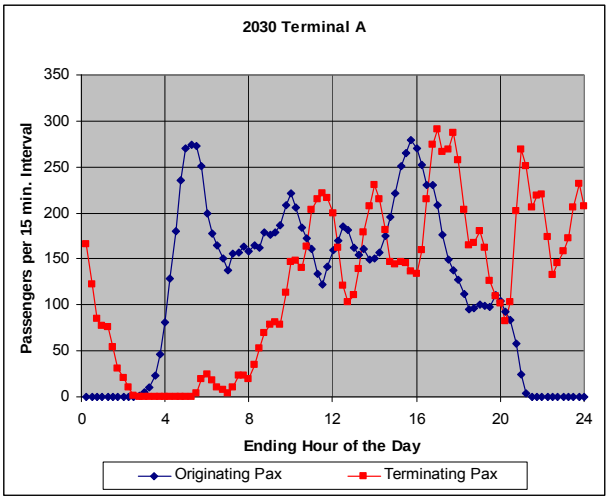
The same roadway network was assumed for the future cases, except that the traffic not going to Terminal A in 2030 was assumed to be split between Terminals B and C. The originating and terminating passengers for the future years were based on additional flight schedules, as shown below. Terminal A was assumed to have WN, DL, NW, and international flights.

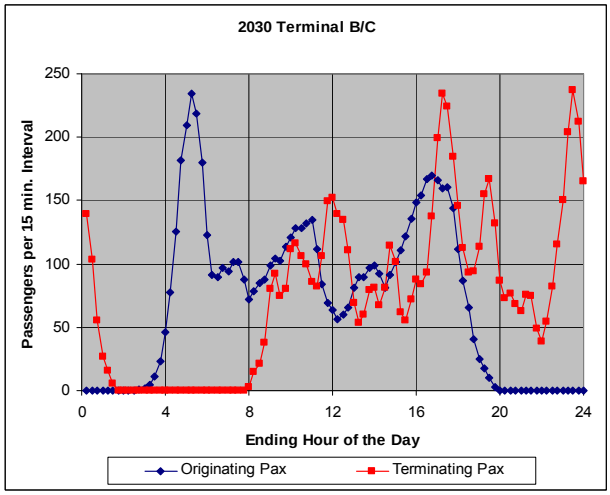












D.5 ROADWAY CAPACITY AND LEVEL-OF-SERVICE METHODOLOGY

The methodology for calculating the capacities and levels-of-service (LOS) for the various roadway segments is based on the 2000 Highway Capacity Manual, with extensions to the lower speeds that are typical of airport roadways. For example, the LOS for most roadway segment types is based on density of traffic for multi-lane highways. An exception is the use of LOS based on delay times for approaches to signalized intersections. Curb methodologies are also an extension, based on the demand to capacity ratio of curb parking use and its related affect on the reduction of through lanes and speeds due to double parking. Similarly, the LOS for curbs is based on density, including both stopped and moving vehicles, so the LOS may be F while the demands are still less than capacity and the congestion does not result in upstream queuing.

APPENDIX E

ARFF STATION LOCATION AND RESPONSE TIMES

This analysis was prepared to determine if more than one Airport Rescue and Fire Fighting (ARFF) Station is needed for San Antonio International Airport when the airfield is expanded. Specifically, this analysis addresses the time required to reach the midpoint of the runways following their extensions as given in the preferred airfield alternative, and whether these response times meet FAA requirements. FAR Part 139 outlines requirements for airport certification. Aircraft rescue and firefighting response requirements are specified in §139.319: "Within 3 minutes from the time of the alarm, at least one required ARFF vehicle shall reach the midpoint of the farthest runway serving air carrier aircraft from its assigned post, or reach any other specified point of comparable distance on the movement area which is available to air carriers, and begin application of foam, dry chemical, or halon 1211."

E.1 VEHICLE PERFORMANCE CHARACTERISTICS

Acceleration and deceleration rates along with cruise and turning speeds were based on typical performance data for response vehicles. It is important to note that actual operating conditions may produce different results from these speeds.

The following assumptions were used in this analysis:

- Top speed 50 miles-per-hour (MPH)
- Turns at a speed of 15 miles-per-hour (MPH)
- Acceleration from 0 to 50 MPH within 45 seconds, which translates to a 1.6 ft-per second squared (fpss) acceleration rate. A constant acceleration was assumed.
- Deceleration from 40 MPH to complete stop in 160 feet or less for a deceleration rate of -10.76 fpss. A constant deceleration was assumed.

The characteristics correspond to the National Fire Protection Association (NFPA) Standard 414 required operational minimums for ARFF vehicles. Other factors affecting vehicle performance include roadway surface conditions, weather, driver technique, vehicle impediments, etc were not included in this analysis due to the difficulty in quantifying them.

E.2 RESPONSE ROUTES

Figure E-1 illustrates the paths taken from the ARFF facility to the midpoint of each runway.

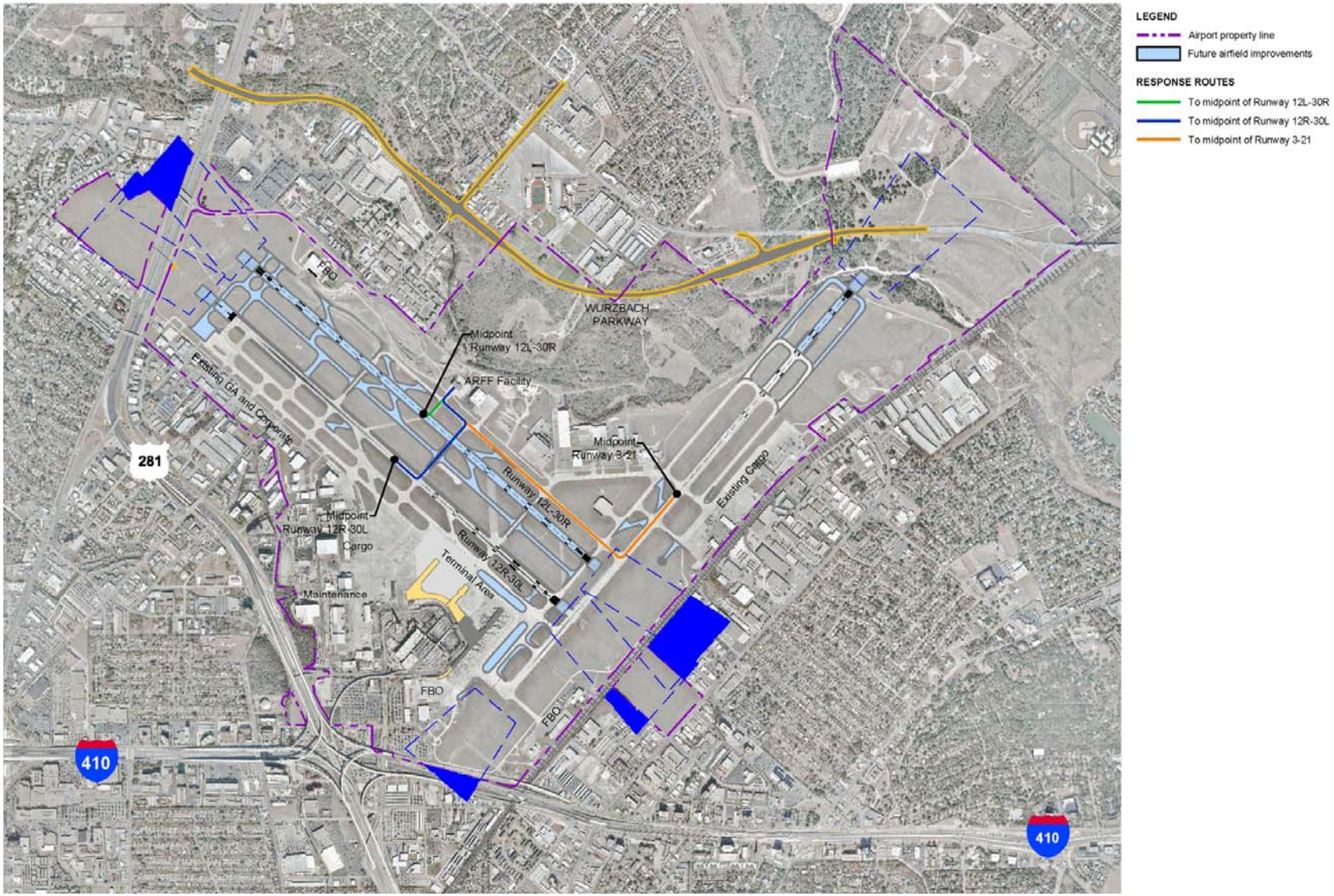
E.3 TRAVEL TIMES

The calculation of travel times from the ARFF station is presented in **Table E-1**. These times include the thirty seconds required from the time the alarm sounds until the trucks are moving. It shows that ARFF vehicles can reach the midpoint of the proposed runways within the time defined by FAR Part 139. The existing ARFF station is therefore adequately located and no secondary station is required.

Table E-1: ARFF RESPONSE ANALYSIS - EXISTING ARFF STATION

To Midpoint of Proposed Runway 12L-30R							
Segment			Time (sec)	Length (feet)	Beginning Speed (mph)	Ending Speed (mph)	Average Speed (mph)
	Time to mobilize		30	-	-	-	-
1	ARFF Station	Acceleration segment	28	598	0	27	14
2	Closed taxiway	Deceleration segment	2	68	27	15	21
3	Turn onto Runway 12L-30R	Turn	7	150	15	15	15
4	Runway 12L-30R	Final segment	2	23	15	0	8
	Total		**69**	**839**			
			1 min 9 sec				
To Midpoint of Proposed Runway 12R-30L							
Segment			Time (sec)	Length (feet)	Beginning Speed (mph)	Ending Speed (mph)	Average Speed (mph)
	Time to mobilize		30	-	-	-	-
1	ARFF Station	Acceleration segment	18	243	0	12	6
2	Closed taxiway	Deceleration segment	1	14	12	15	14
3	Turn onto Taxiway R	Turn	7	150	15	15	15
4	Taxiway R	Acceleration Segment	13	378	15	25	20
5	Taxiway R	Deceleration segment	2	57	25	15	20
6	Turn onto Taxiway A	Turn	7	150	15	15	15
7	Taxiway A	Acceleration Segment	26	1067	15	42	28
8	Taxiway A	Deceleration segment	4	162	42	15	28
9	Turn onto Runway 12R-30L	Turn	7	150	15	15	15
10	Runway 12R-30L	Cruise segment	13	395	15	25	20
11	Runway 12R-30L	Final segment	4	82	25	0	13
	Total		**131**	**2,850**			
			2 min 11 sec				
To Midpoint of Proposed Runway 3-21							
Segment			Time (sec)	Length (feet)	Beginning Speed (mph)	Ending Speed (mph)	Average Speed (mph)
	Time to mobilize		30	-	-	-	-
1	ARFF Station	Acceleration segment	18	243	0	12	6
2	Closed taxiway	Deceleration segment	1	14	12	15	14
3	Turn onto Taxiway R	Turn	7	150	15	15	15
4	Taxiway R	Acceleration Segment	32	1502	15	50	33
5	Taxiway R	Cruise segment	34	2504	50	50	50
6	Taxiway R	Deceleration segment	5	228	50	15	33
7	Turn onto Runway 3-21	Turn	7	150	15	15	15
8	Runway 3-21	Acceleration Segment	29	1304	15	46	31
9	Runway 3-21	Deceleration segment	6	220	46	0	23
	Total		**169**	**6,315**			
			2 min 49 sec				

Figure E-1: Response Routes



E.4 IMPACT OF PROPOSED NFPA STANDARDS ON ARFF REQUIREMENTS

The FAA Reauthorization Act of 2009 calls for aligning Part 139 ARFF standards with the National Fire Protection Association (NFPA standards).

One of the major differences between NFPA and Part 139 pertains to response times. Part 139 requires an airport operator to show that its aircraft rescue and fire fighting vehicles can respond to the midpoint of the farthest air carrier runway in three minutes for the first vehicle and four minutes for all other required vehicles. NFPA requires the first vehicle to reach any point on the operational runway in two minutes or less, and any on-airport point in the rapid response area (RRA) within 2 ½ minutes during conditions of optimum visibility and surface conditions with other required ARFF vehicles arriving in 30 second intervals. The RRA area would have a width of 1000 feet (500 feet each side of the runway centerline) and extend 1650 feet beyond each runway end. It is proposed that any point in this RRA that is located on Airport property would be accessible to ARFF vehicles. **Figure E-2** illustrated the rapid response area for SAT.

A preliminary analysis was performed to calculate response times from the existing ARFF station to the runway ends for the recommended airfield layout. The analysis has demonstrated that the current ARFF location would not meet NFPA standards. The results are shown in **Table E-2**. If the regulation is implemented, additional analyses will be required to determine the optimal number of stations and their locations. The current ARFF station could potentially be decommissioned and two new stations on the east and west sides of the Airport would have to be built to meet response time requirements to the runway ends.

Table E-2: ARFF RESPONSE TIMES TO RUNWAY ENDS - EXISTING ARFF STATION

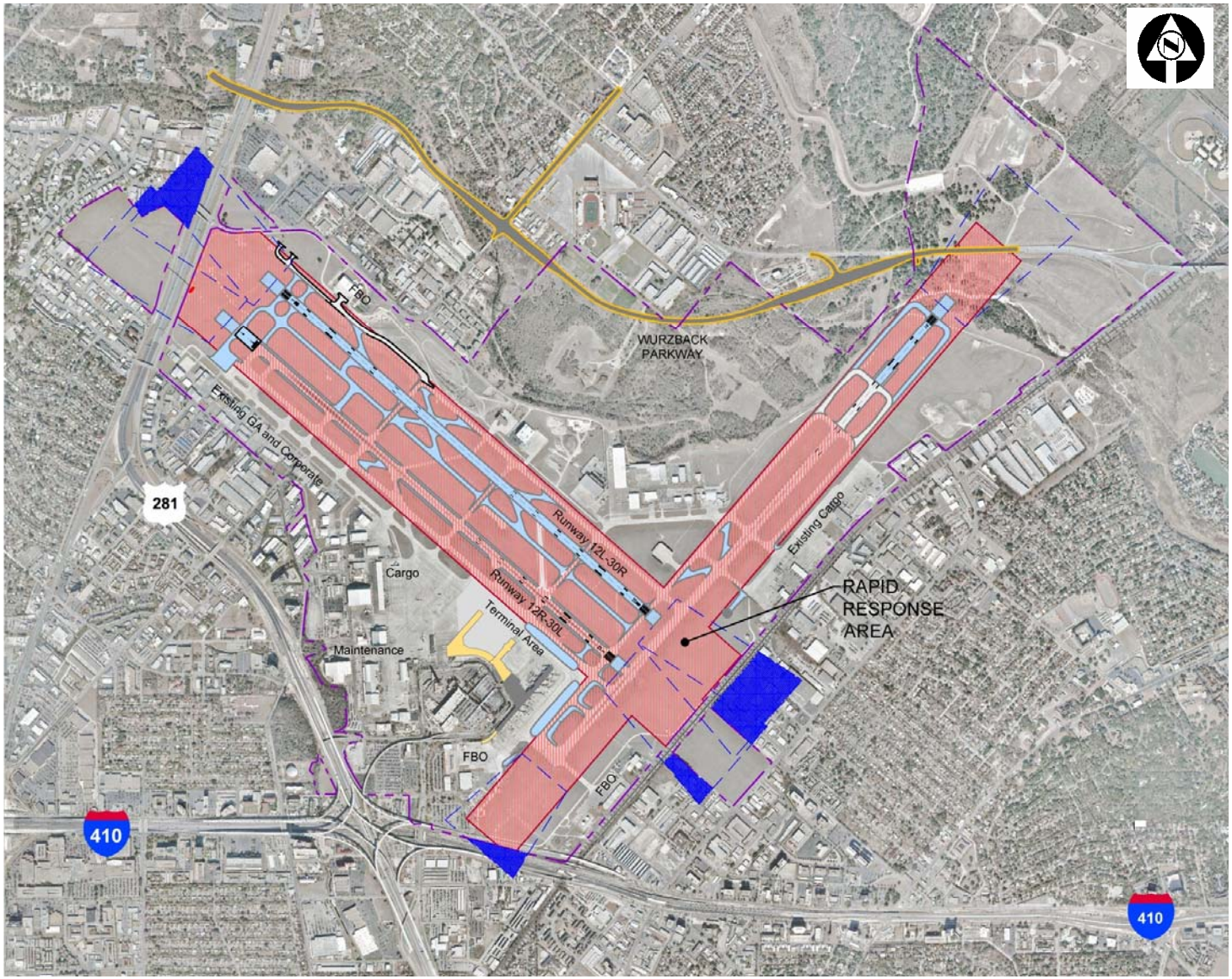
	Segment		Time (sec)	Length (feet)	Beginning Speed (mph)	Ending Speed (mph)	Average Speed (mph)
To Proposed Runway 12L End							
	Time to mobilize		30	-	-	-	-
1	ARFF Station	Acceleration segment	28	598	0	27	14
2	Closed taxiway	Deceleration segment	2	68	27	15	21
3	Turn onto Runway 12L-30R	Turn	7	150	15	15	15
4	Runway 12L-30R	Acceleration Segment	32	1502	15	50	33
5	Runway 12L-30R	Cruise segment	33	2386	50	50	50
6	Runway 12L-30R	Final segment	7	250	50	0	25
	Total		**138**	**4,955**			
To Proposed Runway 30R End							
	Segment		Time (sec)	Length (feet)	Beginning Speed (mph)	Ending Speed (mph)	Average Speed (mph)
	Time to mobilize		30	-	-	-	-
1	ARFF Station	Acceleration segment	28	598	0	27	14
2	Closed taxiway	Deceleration segment	2	68	27	15	21
3	Turn onto Runway 12L-30R	Turn	7	150	15	15	15
4	Runway 12L-30R	Acceleration Segment	32	1502	15	50	33
5	Runway 12L-30R	Cruise segment	30	2198	50	50	50
6	Runway 12L-30R	Final segment	7	250	50	0	25
	Total		**135**	**4,766**			
			2 min 15 sec				
To Proposed Runway 12R End							
	Segment		Time (sec)	Length (feet)	Beginning Speed (mph)	Ending Speed (mph)	Average Speed (mph)
	Time to mobilize		30	-	-	-	-
1	ARFF Station	Acceleration segment	18	243	0	12	6
2	Closed taxiway	Deceleration segment	1	14	12	15	14
3	Turn onto Taxiway R	Turn	7	150	15	15	15
4	Taxiway R	Acceleration Segment	13	378	15	25	20
5	Taxiway R	Deceleration segment	2	57	25	15	20
6	Turn onto Taxiway A	Turn	7	150	15	15	15
7	Taxiway A	Acceleration Segment	26	1067	15	42	28
8	Taxiway A	Deceleration segment	4	162	42	15	28
9	Turn onto Runway 12R-30L	Turn	7	150	15	15	15
10	Runway 12R-30L	Acceleration Segment	32	1502	15	50	33
11	Runway 12R-30L	Cruise segment	42	3064	50	50	50
12	Runway 12R-30L	Final segment	7	250	50	0	25
	Total		**194**	**7,187**			
			3 min 14 sec				

To Proposed Runway 30L End							
	Segment		Time (sec)	Length (feet)	Beginning Speed (mph)	Ending Speed (mph)	Average Speed (mph)
	Time to mobilize		30	-	-	-	-
1	ARFF Station	Acceleration segment	18	243	0	12	6
2	Closed taxiway	Deceleration segment	1	14	12	15	14
3	Turn onto Taxiway R	Turn	7	150	15	15	15
4	Taxiway R	Acceleration Segment	13	378	15	25	20
5	Taxiway R	Deceleration segment	2	57	25	15	20
6	Turn onto Taxiway A	Turn	7	150	15	15	15
7	Taxiway A	Acceleration Segment	26	1067	15	42	28
8	Taxiway A	Deceleration segment	4	162	42	15	28
9	Turn onto Runway 12R-30L	Turn	7	150	15	15	15
10	Runway 12R-30L	Acceleration Segment	32	1502	15	50	33
11	Runway 12R-30L	Cruise segment	26	1919	50	50	50
12	Runway 12R-30L	Final segment	7	250	50	0	25
	Total		**178**	**6,043**			
			2 min 58 sec				

To Proposed Runway 3 End							
	Segment		Time (sec)	Length (feet)	Beginning Speed (mph)	Ending Speed (mph)	Average Speed (mph)
	Time to mobilize		30	-	-	-	-
1	ARFF Station	Acceleration segment	18	243	0	12	6
2	Closed taxiway	Deceleration segment	1	14	12	15	14
3	Turn onto Taxiway R	Turn	7	150	15	15	15
4	Taxiway R	Acceleration Segment	32	1502	15	50	33
5	Taxiway R	Cruise segment	34	2504	50	50	50
6	Taxiway R	Deceleration segment	5	228	50	15	33
7	Turn onto Runway 3-21	Turn	7	150	15	15	15
8	Runway 3-21	Acceleration Segment	32	1502	15	50	33
9	Runway 3-21	Cruise segment	21	1572	50	50	50
10	Runway 3-21	Final segment	7	250	50	0	25
	Total		**193**	**8,114**			
			3 min 13 sec				

To Proposed Runway 21 End							
	Segment		Time (sec)	Length (feet)	Beginning Speed (mph)	Ending Speed (mph)	Average Speed (mph)
	Time to mobilize		30	-	-	-	-
1	ARFF Station	Acceleration segment	18	243	0	15	8
2	Closed taxiway	Deceleration segment	1	14	12	15	14
3	Turn onto Taxiway R	Turn	7	150	15	15	15
4	Taxiway R	Acceleration Segment	32	1502	15	50	33
5	Taxiway R	Cruise segment	34	2504	50	50	50
6	Taxiway R	Deceleration segment	5	228	50	15	33
7	Turn onto Runway 3-21	Turn	7	150	15	15	15
8	Runway 3-21	Acceleration Segment	32	1502	15	50	33
9	Runway 3-21	Cruise segment	65	4772	50	50	50
10	Runway 3-21	Final segment	7	250	50	0	25
	Total		**236**	**11,314**			
			3 min 56 sec				

Figure E-2: Proposed Rapid Response Area



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APPENDIX F

TERMINAL C DESIGN CONCERNS

F.1 MASTER PLANNING CONSIDERATIONS

From the overall master plan perspective, as stated earlier, a primary disadvantage of the current design is that the narrow (20' wide) pedestrian connection between Terminals B and C fails to create a unified, continuous terminal area from Terminal A thru C. This is a lost opportunity to provide continuity at the terminal frontage for pedestrian movement and amenities between terminals, and to create a connecting node for a future intermodal connection. Furthermore, this connection is currently designed as a single-level connection only, located at the arrivals level. A wider, 2-level connection could accommodate both public (non-secure) circulation and ticketed passenger (secure) circulation between Terminals B and C. If adequate width is provided, this connection could also provide concessions opportunities, especially non-secure concessions now missing from both terminals. It may be possible to reorganize or redesign the toilet rooms and mechanical cores within the existing design allowing an expanded corridor width, thus only changing the plans for Terminal C slightly.

As originally designed, the Alternative 1 – *1998 SAT Airport Master Plan* – illustrates a single ADG III taxilane between Terminals C and D that will potentially create airfield congestion during peak periods at full buildout. To some extent this constraint could be alleviated by positioning the Terminal C concourse closer to that of Terminal B. This would obviously force the core Terminal C processing area further east along the frontage road, closer to Terminal B, thus shortening the connection between the two terminals. (**Figure F-1**)

Figure F-1

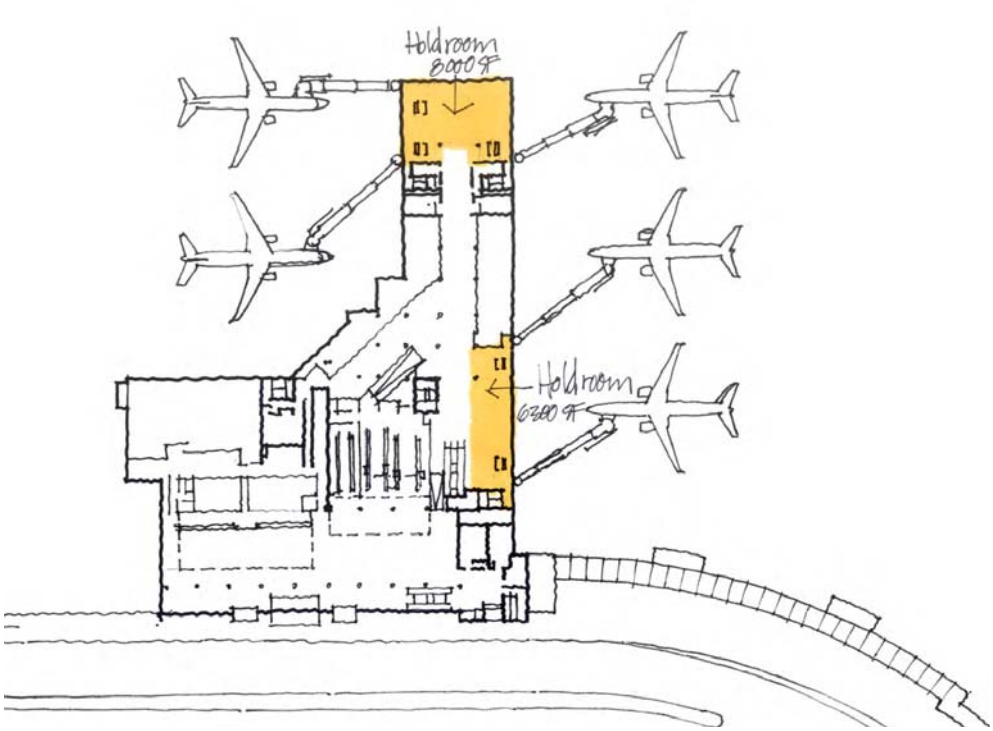
The concourse itself, in either the present alignment or one closer to Terminal B, provides good expandability, with a possible total of 13 gates as shown in Alternative 1. This expandability may however tax the terminal processing area as designed, further discussed below.

F.2 PROGRAMMATIC ISSUES

Holdrooms: The Terminal C plan as designed provides a total of about 14,300 SF of holdroom area for 5 large narrowbody gates. This is an average of 2,860 SF per gate, somewhat small for the 737-900's shown on the plan. Current suggested standards are closer to 3,500 SF for typical large narrowbody gates. (**Figure F-2**) These holdrooms could be expanded by adding

an additional structural bay (30') at the end of the concourse, thereby providing a 3-gate holdroom of approximately 10,850 SF (3,600 SF / holdroom), and by reducing the concessions space on the east side by about 700 SF, thus enlarging the 6,300 SF holdroom to 7,000 SF for the two gates it serves (3,500 SF each).

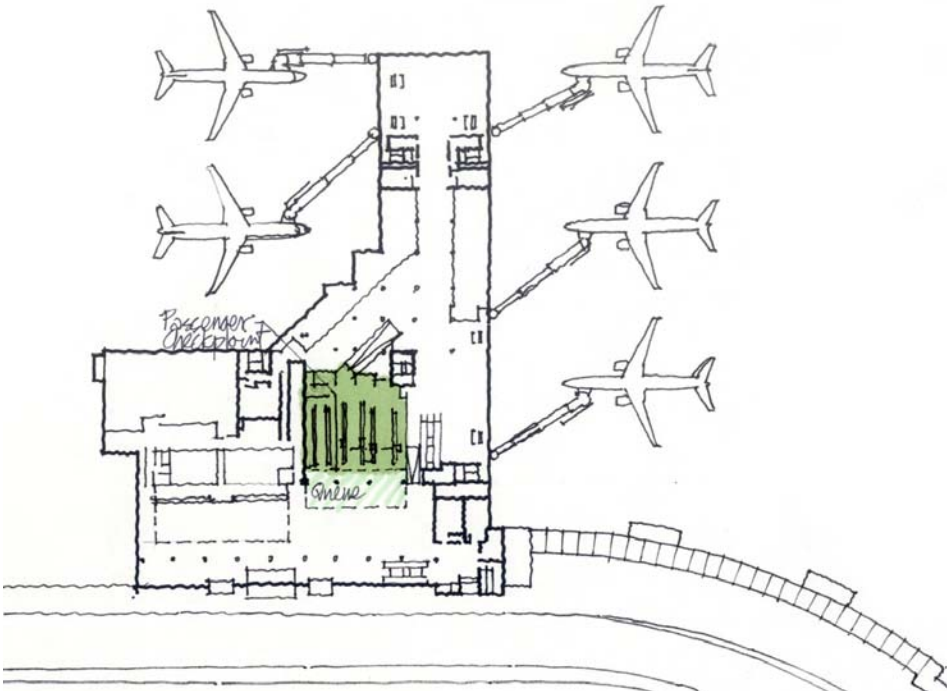
Figure F-2



Passenger Checkpoint: The passenger checkpoint is shown with 4 lanes and 2 "temporary training lanes", presumably available for use during peak periods. The area provided for these 6 lanes is about 8,200 SF, slightly less than the planning standard of 1,500 SF per lane. However, the 3,500 SF queue space appears to be adequate for typical passenger loading requirements. For passengers with baggage (15 SF/ pax) this queue space will accommodate about 233 passengers; an average processing rate per lane is 180 pax/hr or 3 pax/minute. After entering a full queue, with 4-lanes open to process passengers, the longest wait after entering the queue would be 19-minutes. If 6-lanes are open the longest wait would be about 13 minutes. A concern about the passenger checkpoint area is that it is not expandable; it is confined between the ticket counter and airline ticket offices on one side, and the checkpoint exit and escalators to bag claim on the other side. While six security checkpoint lanes for a future concourse with 12 or 13 gates may be adequate, depending on peak period departures from this terminal, the queue space could become a problem.

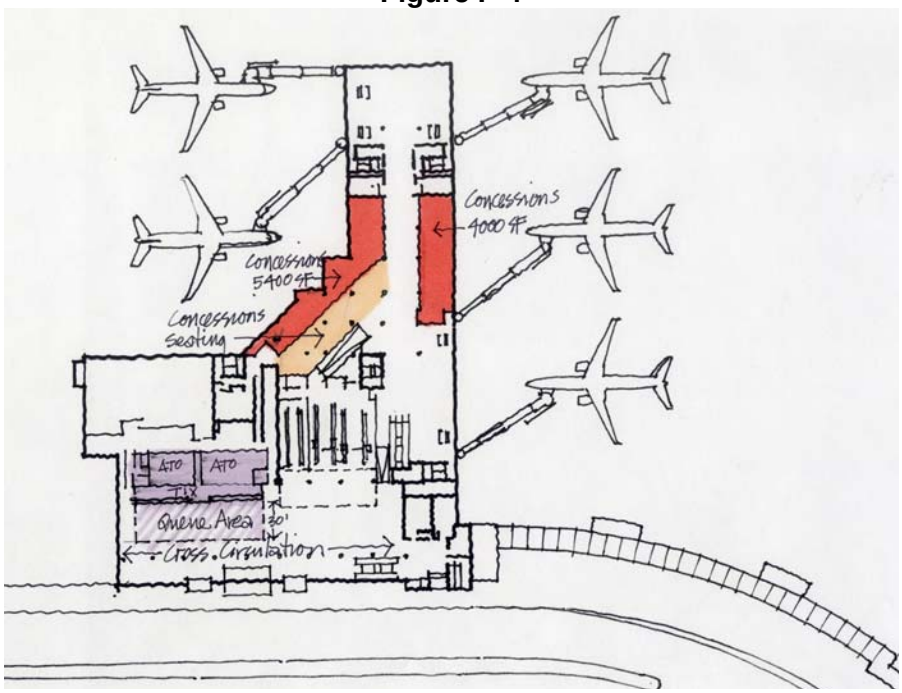
As passenger throughput demand continues to increase beyond 2030, without a further addition to the 6-lane checkpoint, the queue will lengthen and eventually back up into the general cross-circulation pattern to and from ticketing. (**Figure F-3**)

Figure F-3



Ticketing Hall: The ticketing hall provides 126 linear feet of ticket counter length, or 24 agent positions. If 30-feet of depth is provided for typical queue space, this leaves a little less than 25-feet for general circulation to the column line 'C' south of the ticket lobby; 30-feet for general circulation is preferred. If this column line was deleted and the span was continued to the exterior wall, the space would feel more open and uncluttered. While adequate in the near term, the construction of Terminal D will potentially result in more cross-traffic, and the ticketing hall will become crowded. (**Figure F-4**) Ticketing and ATO expansion, if required to meet demands of additional aircraft gates on an expanded concourse, would most likely occur within terminal expansion on the west.

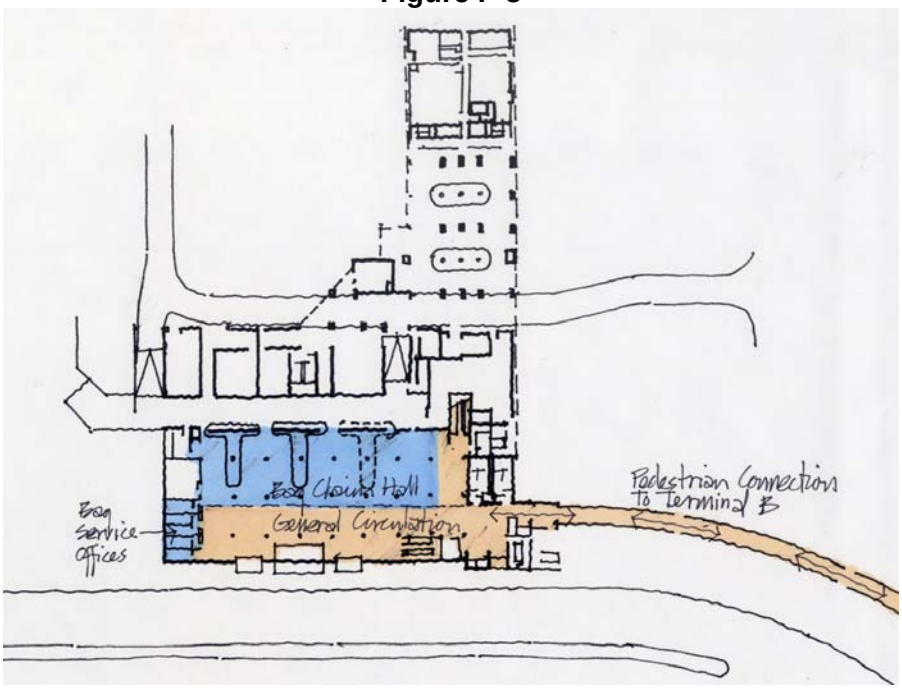
Figure F-4



Concessions: Secure concessions at roughly 9,400 SF, with an additional 2,800 SF for concessions seating appears more than adequate for the initial 5-gate terminal. More secure concessions can be built as the concourse is expanded. However, as mentioned earlier, there are no provisions for non-secure concessions, except for a small area at the arrivals level. (Figure F-4)

Bag Claim Area: The bag claim hall at the arrivals level is designed for two 160-linear foot flat-plate devices, with expansion space available for a third device. Three claim devices would accommodate 7 large narrowbody gates; however, the concourse can initially be expanded to 9 gates, and potentially to 13 gates, depending on concourse configuration. This expansion would not be supported by the available bag claim area. Unfortunately, this area cannot be expanded easterly without relocating the toilet room cores. As with ticketing and ATO space above, it is assumed that future expansion would occur on the west. (**Figure F-5**)

Figure F-5



F.3 OTHER GENERAL OBSERVATIONS

While we do not have an understanding of all the programmatic, space, and budget constraints of the current Terminal C design, we would like to offer a few additional observations.

There appears to be little future flexibility or expandability for major program elements within the terminal footprint due to layout constraints. The east edge of the terminal is replete with toilet room cores, vertical circulation cores, and mechanical spaces, leaving only a small 20' opening in the plan for the single-level passenger connection to Terminal B. As stated before this constrained connection is a major concern. Further, these cores prevent expansion of key programmatic elements - passenger checkpoint and bag claim - that may have to grow to adequately serve a concourse expansion of up to 13 gates.

Based on the *1998 SAT Airport Master Plan,* it is apparent that the massing of Terminal D is a mirror image of Terminal C but with a longer concourse, and the layout of program elements would probably mirror that of Terminal C, with a linear east-west continuation of the ticketing hall bounded by service cores on the west. While further expansion to the west, beyond Terminal D, is not anticipated in the planning horizon, the connection on the east from Terminal C to Terminals A and B should be a generous, multi-level pedestrian connector, as discussed before.

A sectional issue with the terminal is the change of floor elevation within the terminal at the departures level, between the ticketing hall / passenger check point and the concourse. The current scheme imposes ramping at multiple locations within the terminal. Evidently the arrivals roadway level – if extended through the terminal into the concourse – would place the concourse level too high to comfortably serve aircraft at contact gates, without intermediate ramping at some location.

While this problem of connecting a high concourse to low-sill aircraft has been solved with alternative solutions – internal ramping between holdrooms and jet bridge rotundas, fixed tunnel sections with ramps, or longer jet bridges – the solution of ramping within the terminal spaces may well be the most economical alternative. Indeed ramps may have to be employed with any scheme that might be proposed. However, being fixed elements within the terminal, these ramps make it exceedingly difficult to provide flexibility that accommodates growth or plan change.

One of the master plan strategies being proposed is the relocation of Customs and Border Protection (CBP) to Terminal C, when it is built. This would allow the construction of a new CBP facility at SAT, fully compliant with the latest CBP requirements, with the ability to serve predominantly wide-body aircraft, but also smaller RJ's. With relocation of CBP from Terminal A to Terminal C, the existing Terminal A space would allow expansion of the Bag Claim Hall and additional bag claim devices. Unfortunately, there is no opportunity for CBP Processing within Terminal C as it is now planned. Expansion and reorganization of the floor plans will be necessary for this important move to take place.

In summary, there are several deficiencies within the current design of Terminal C that are incompatible with the new master plan vision. These include:

- Does not create sense of unified terminal area and frontage with Terminals A and B due to narrow single-level pedestrian connector
- Single ADG III taxilane between Terminal C and planned Terminal D can create airfield congestion during peak periods
- Holdrooms as designed are smaller than current recommended standards for 737-900's
- Passenger checkpoint cannot be expanded; future queues during peak periods may back up into general circulation
- No flexibility for ticket counter and ATO expansion without expanding terminal footprint to the west
- Ticketing Hall width less than ideal for both 30' queue depth and 30' circulation; suggest greater spans to avoid conflict between columns and circulation
- Non-secure concessions area is insufficient
- No Bag Claim Hall expansion opportunities beyond 3-devices without future expansion to the west
- Concourse can grow, but layout does not allow future flexibility or expandability for major program elements within existing terminal building
- Level changes and ramping within terminal limit flexibility
- No opportunity to include CBP within current plan

The current design for Terminal C is an efficient, unit terminal facility. However, it does not recognize the desire to create a contiguous terminal complex at SAT. It is possible the plans for C can be modified to accommodate a larger connector between A/B and C/D so that they are viewed as a single, unified terminal. This expanded connector will have both secure and non-

secure corridors and a much larger concessions development. This connector might also accommodate a future intermodal connection.

Relocation of Terminal C to the east would solve potential future airfield congestion between concourses when Terminal D is built. Other suggestions concerning core re-configuration and modest footprint expansion would enable the design of a robust connection to Terminal B, re-sizing of holdroom areas, and potential expansion of ticketing hall and bag claim functions which must be added if C Concourse is extended. Alternative locations for CBP, either at a mezzanine or arrivals level, should also be considered.

The costs to modify the plans for Terminal C should be minor compared to the enormous benefits of a unified terminal serving SAT.

APPENDIX G

RUNWAY HIGH SPEED EXIT ANALYSIS

The AECOM Master Plan Update team has been tasked to analyze the taxiway capabilities of Taxiways L, B & M for Runway 30L arrival. In our analysis we have verified the current taxiway classification and determined if adequate pavement is in place for meeting Airplane Design Group (ADG)-III/IV/V standards. Evaluations have also addressed if arriving aircraft can safely decelerate to make the turns onto the aforementioned taxiways at a safe taxiing speed. The taxiway exits in question are acute taxiways, with a turn totaling 130 degrees. The tables on the following page were generated for ease of reference. The figures attached depict the visual simulations that correspond to the analysis.

The B777 aircraft was used as the most critical aircraft in this analysis since it is forecasted in the 2009 Master Plan Update with total annual operations exceeding 500. The B777 is an ADG-V aircraft, with the widest main gear width of all the forecasted aircraft. The B737-900 was used in the analysis since it is the largest ADG-III aircraft in the forecast. The other aircraft used (B757/B767) have been analyzed since they have been viewed by the Airport to utilize these taxiways.

G.1 BACKGROUND

Table G-1: Aircraft Landing Weight and Required Runway

	Max Design Landing Weight	Runway Landing Length Required (feet)	
		WET	DRY
Boeing 777-200[1]	441,000 lbs.	5,700	5,100
Other Aircraft At SAT			
B757-300[2]	210,000 lbs.	5,600	4,700
B767-400[3]	350,000 lbs.	6,800	6,100
B737-900[4]	146,300 lbs.	6,400	5,600

[1] Zero runway gradient and zero wind.
[2] Standard day, auto spoilers operative, anti-skid operative, zero runway, gradient zero wind and nominal performance.
[3] Standard day, full flaps, no reverse thrust, anti-skid operative, auto speed brakes, zero gradient and zero wind.
[4] Standard day, full flaps, auto spoilers operative, anti-skid operative and zero wind.

Table G-2: SAT Taxiway Widths and Distances from Runway 30L End

Taxiway	Width (feet)	FAA Group	Length	
			From Runway 30L End	From Runway 30L Aiming Point
L	75	V	2,899	1,399
B	75	V	5,145	3,645
M	50	III	5,145	3,645

Table G-3: Approximate Taxiway Exit Location from Threshold

	Touchdown Speed (knots)	Location For Exit Speeds (knots)	
		52	13
Large Turbojet Twin Engine	130	4,800	5,600

Table G-4: Taxiway Dimensional Standards

Airplane Design Group	Taxiway Edge Safety Margin (feet)
Group III	10
Group IV/V	15

G.2 TAXIWAY L

- Group III B737-900, Figure 1a, can successfully turn-off on this runway.
- The Group V B777-200, Figure 3a, shows the track of the main gear off the edge of the pavement.
- Using judgmental oversteering, Figure 3c, the aircraft gear stays on the taxiway but the gear is not within the 15 foot safety margin of the edge of the taxiway. This also provides minimal cost since less pavement is added.
- The taxiway does not meet the 15 foot margin standard for Group IV/V aircraft making the turn-off from Runway 30L.

G.3 TAXIWAY B

- Group III B737-900, Figure 1b, can successfully turn-off on this runway.
- The Group V B777-200, Figure 3a, shows the track of the main gear off the edge of the pavement.
- Using judgmental oversteering, Figure 3b, the aircraft gear stays on the taxiway but the gear is not within the 15 foot safety margin of the edge of the taxiway. This also provides minimal cost since less pavement is added.
- The taxiway does not meet the 15 foot margin standard for Group IV/V aircraft making the turn-off from Runway 30L.

G.4 TAXIWAY M

- The Group III B737-900, Figure 1c, shows the track of the main gear roughly a foot away from the taxiway edge.
- This taxiway does not meet the 10 foot margin for Group III aircraft are making the turn-off from Runway 30L.

G.5 CONCLUSION

Upon reviewing the design criteria and safety standards, we recommend leaving the Taxiway lead-off lines on Taxiway L and B as is, pending specific exceptions. Typical large twin turbojet aircraft need approximately 5,600 feet to decelerate onto an acute taxiway (130 degree turn) at 13 knots (a safe taxi speed). However, Southwest currently employs maximum braking techniques in order to exit the Runway via Taxiway B.

Taxiways L and B can both safely accommodate ADG-III aircraft, however to adhere to the safety standards (AC 150/5300-13), ADG IV and V would require additional fillet pavement to utilize these Taxiway lead-offs. Therefore, we recommend issuing a NOTAM stating that ADG IV and V aircraft are prohibited from utilizing Taxiways L and B when landing on Runway 30L.

If future demand requires Taxiway L and B to accommodate ADG IV and V aircraft, additional fillet pavement would be required. However, ADG IV and V could only safely utilize Taxiway L if maximum braking techniques were utilized.

A B737 aircraft turning onto the ADG-III Taxiway M, while landing on Runway 30L can make this turn, however it does not have the 10 foot safety margin required. Since there is no existing lead-off line from Runway 30L, it is recommended that the Airport continue to operate using current procedures, and not utilize Taxiway M while landing on Runway 30L. Should this maneuver be required, additional fillet pavement is needed to adhere to the safety standards.

Figure G-1: Taxiway Distances from Runway Threshold

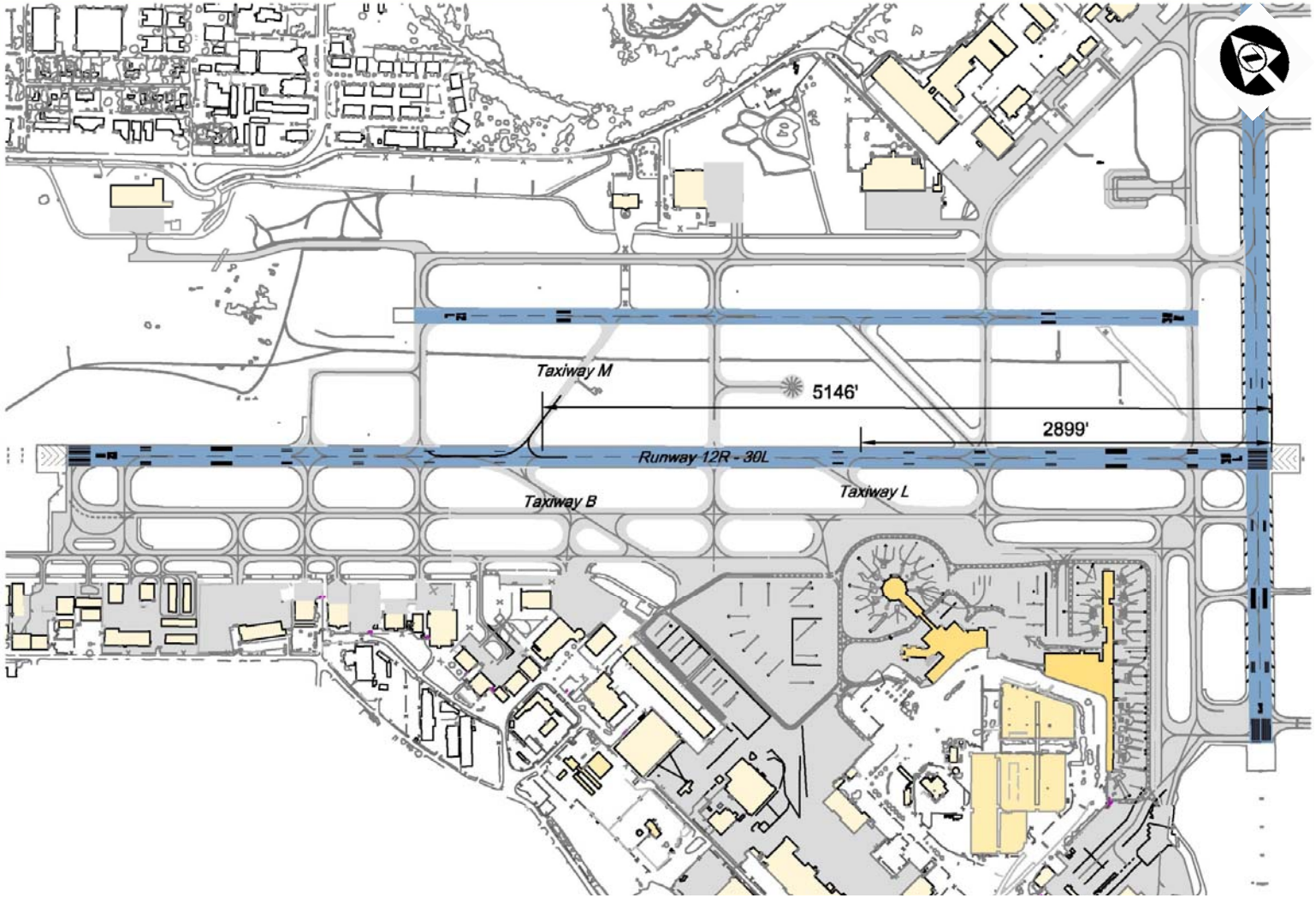


Figure G-2: Taxiway L Group III Aircraft

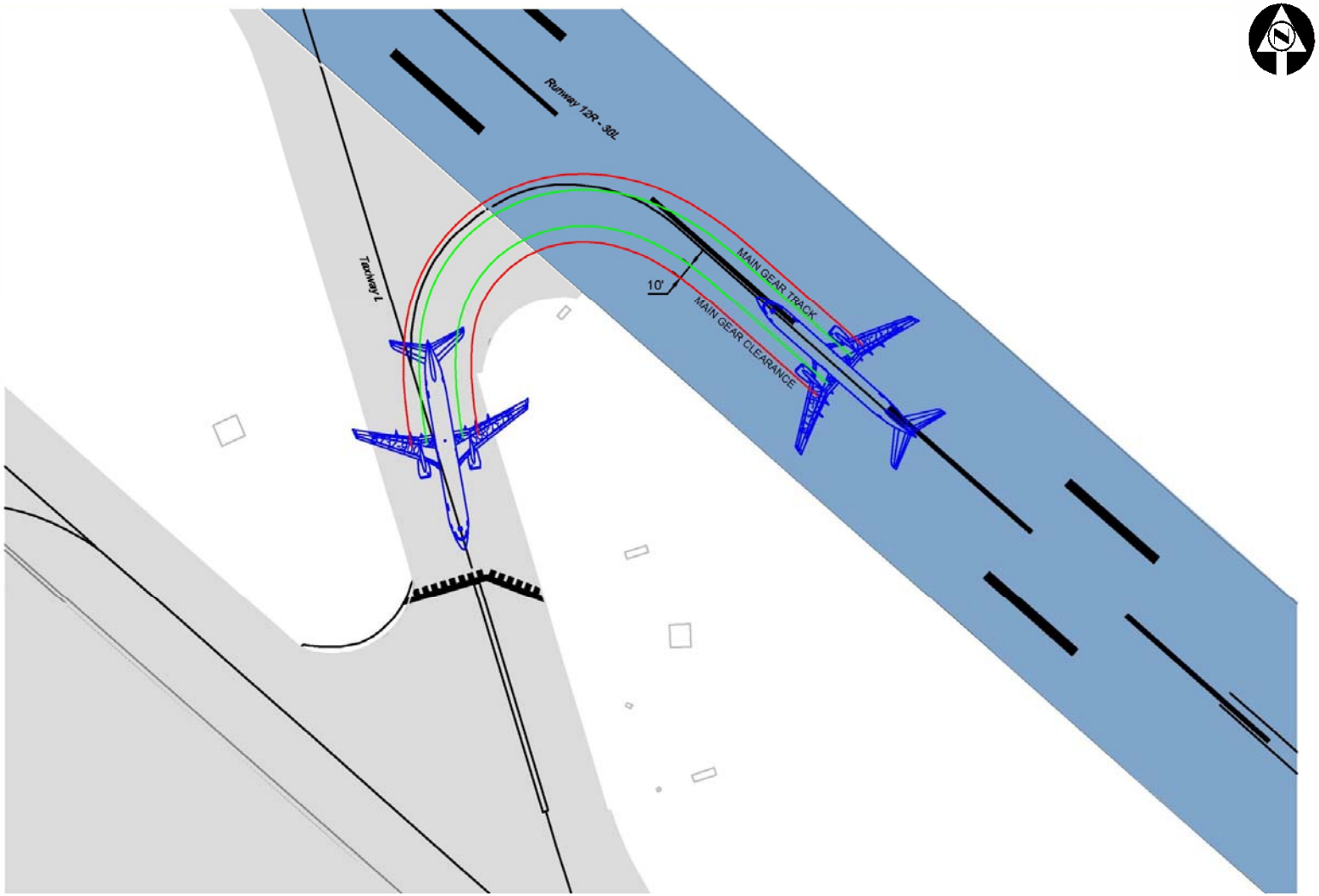


Figure G-3: Taxiway L Group IV Aircraft – B757

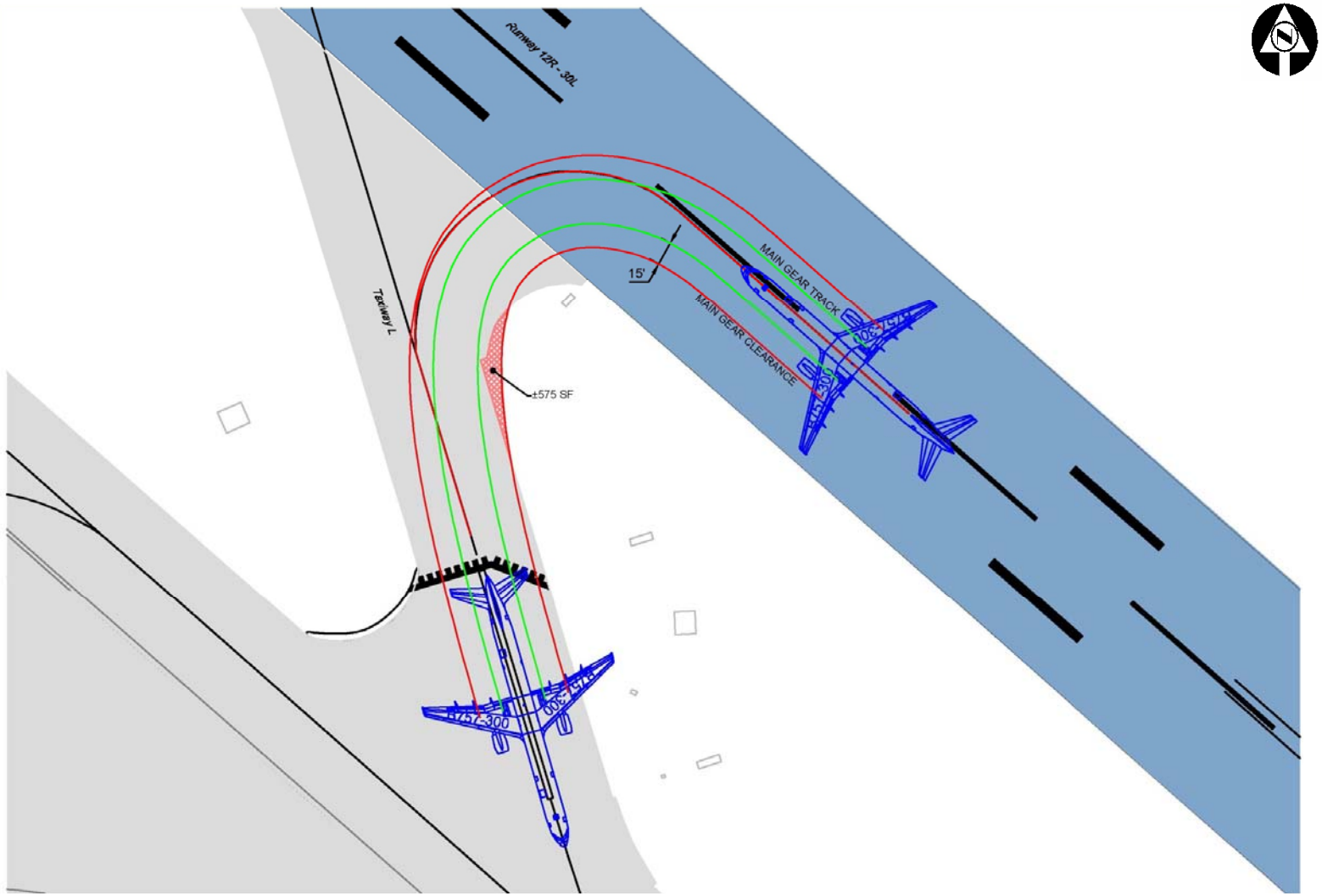


Figure G-4: Taxiway L Group IV Aircraft – B757 Oversteer

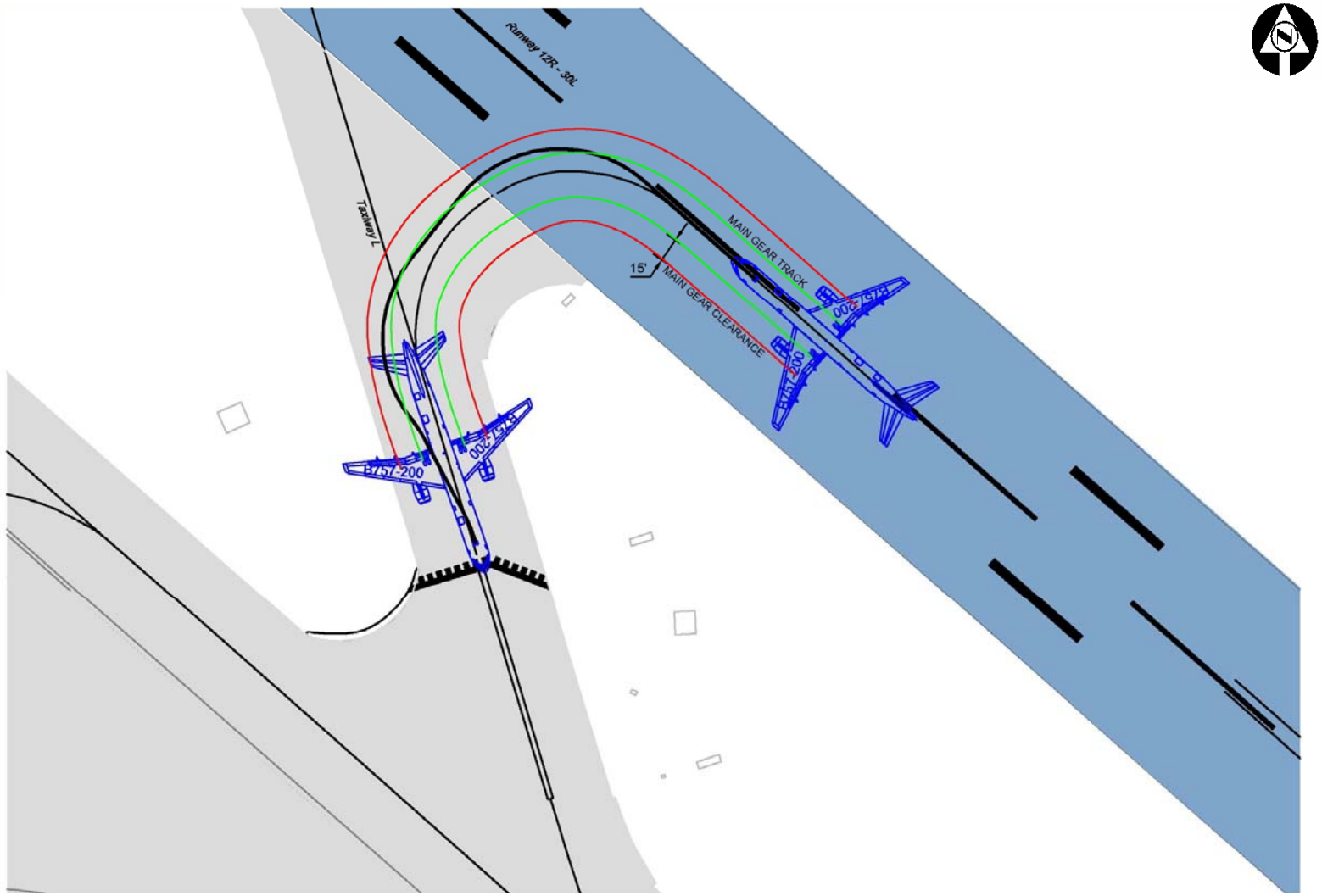


Figure G-5: Taxiway L Group IV Aircraft – B767

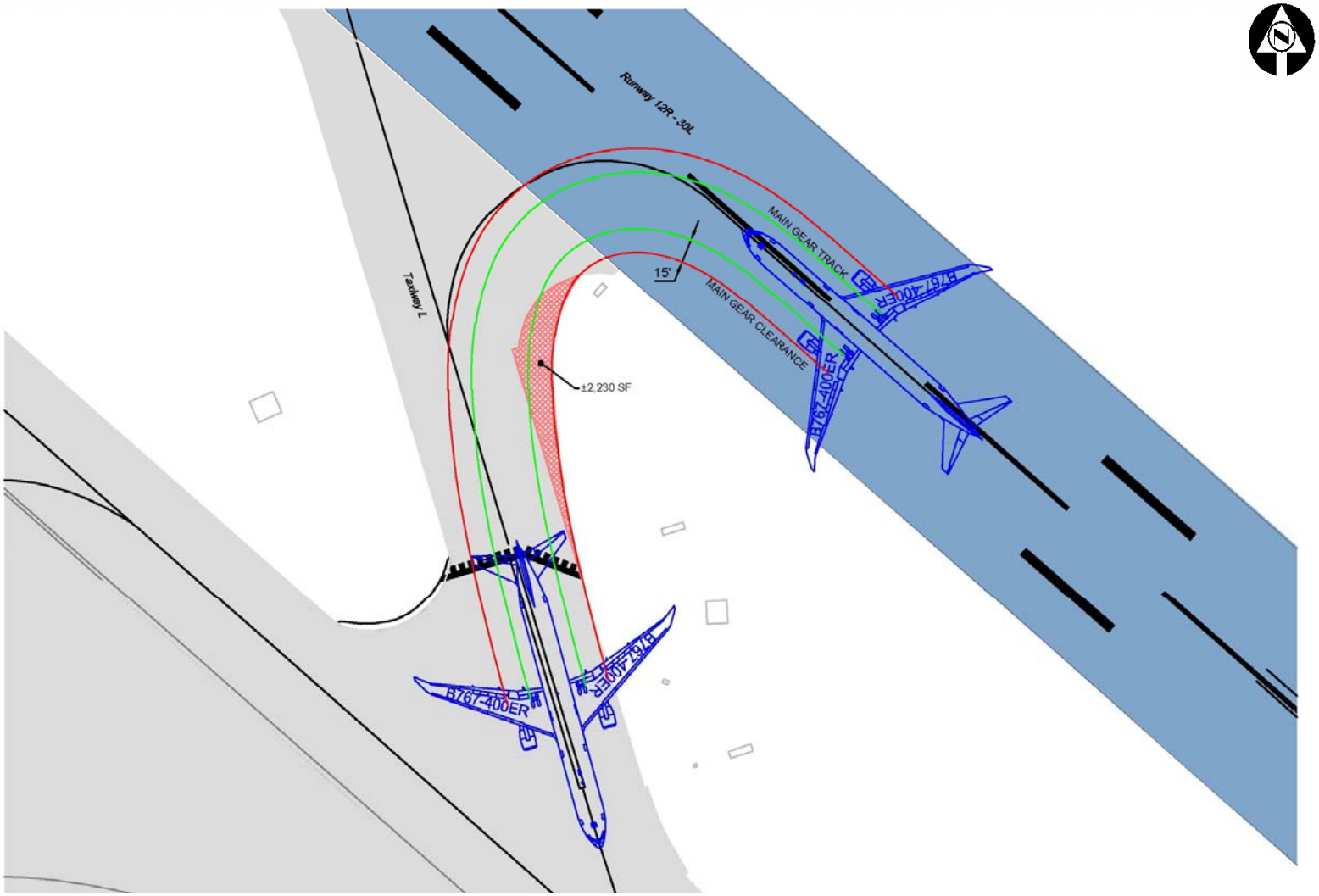


Figure G-6: Taxiway L Group IV Aircraft – B767 Oversteer

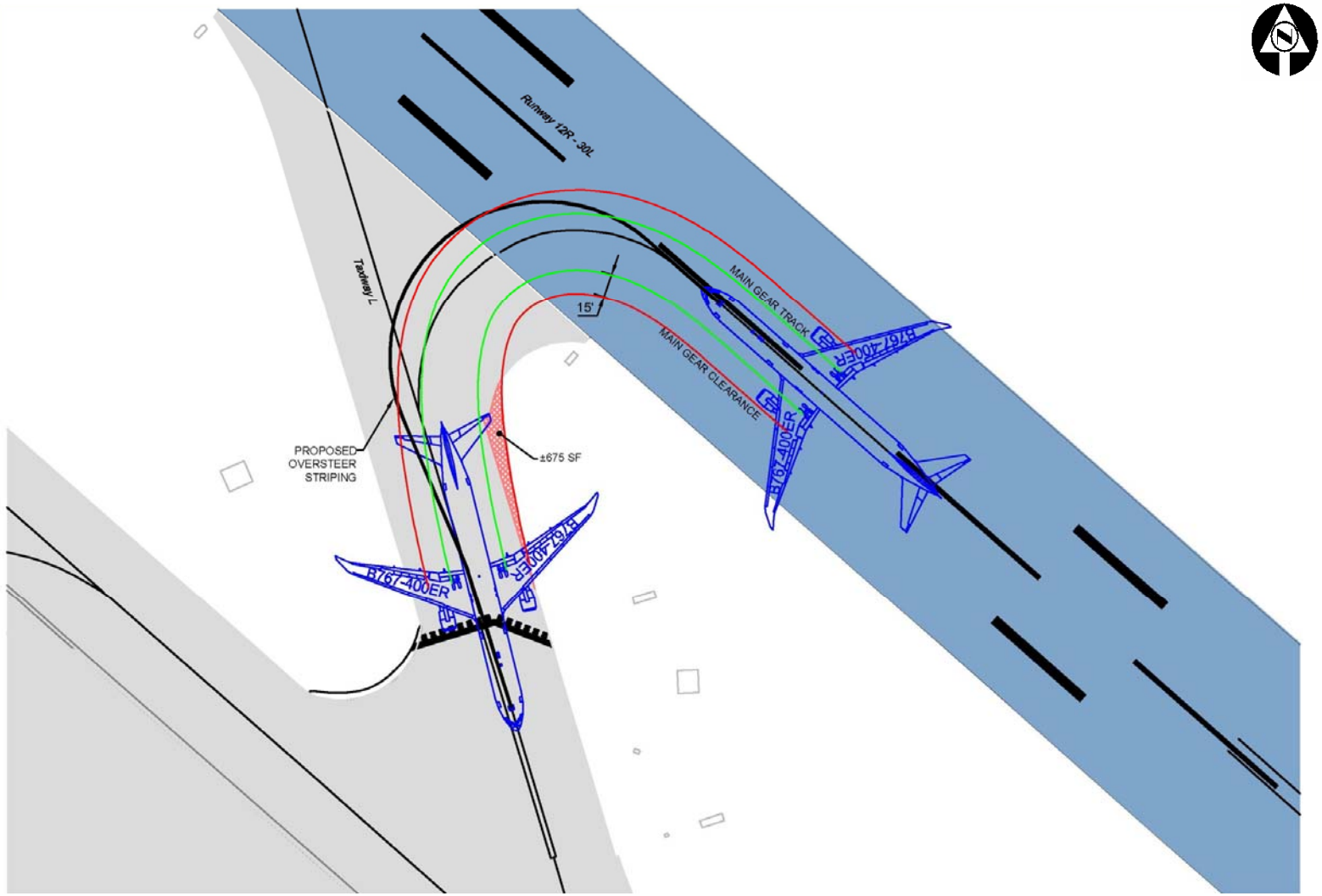


Figure G-7: Taxiway L Group V Aircraft

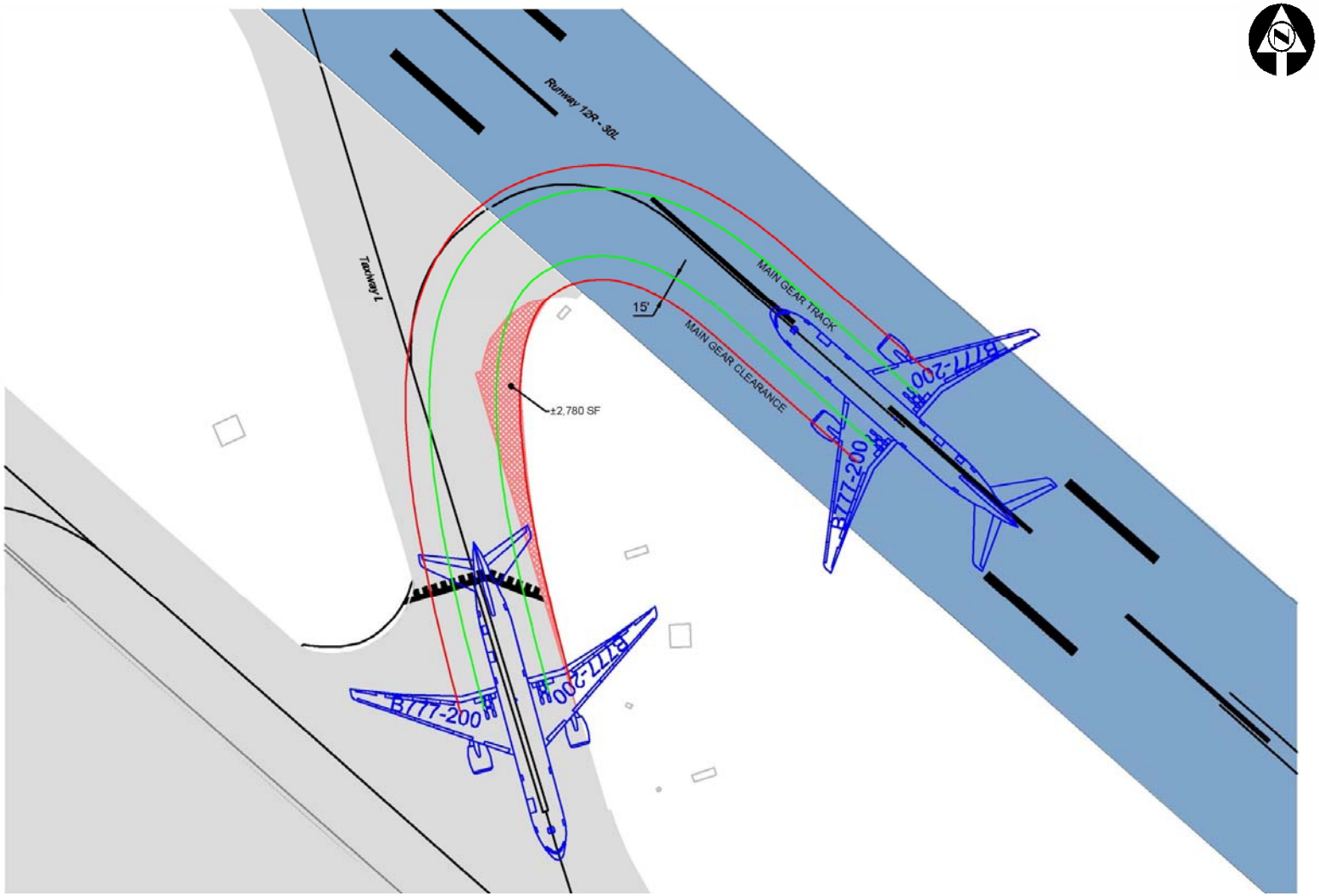


Figure G-8: Taxiway L Group V Aircraft – Oversteer

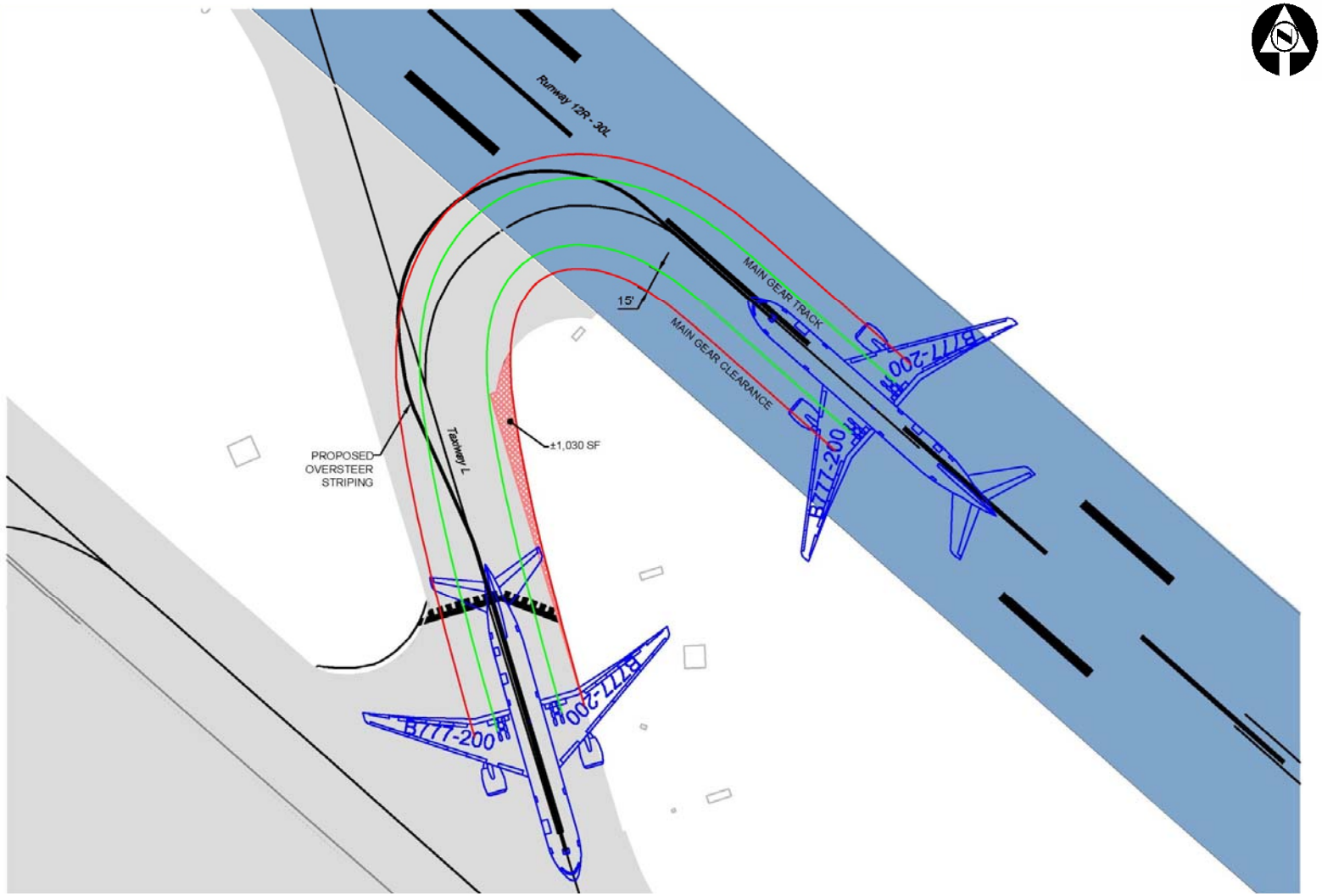


Figure G-9: Taxiway B Group III Aircraft

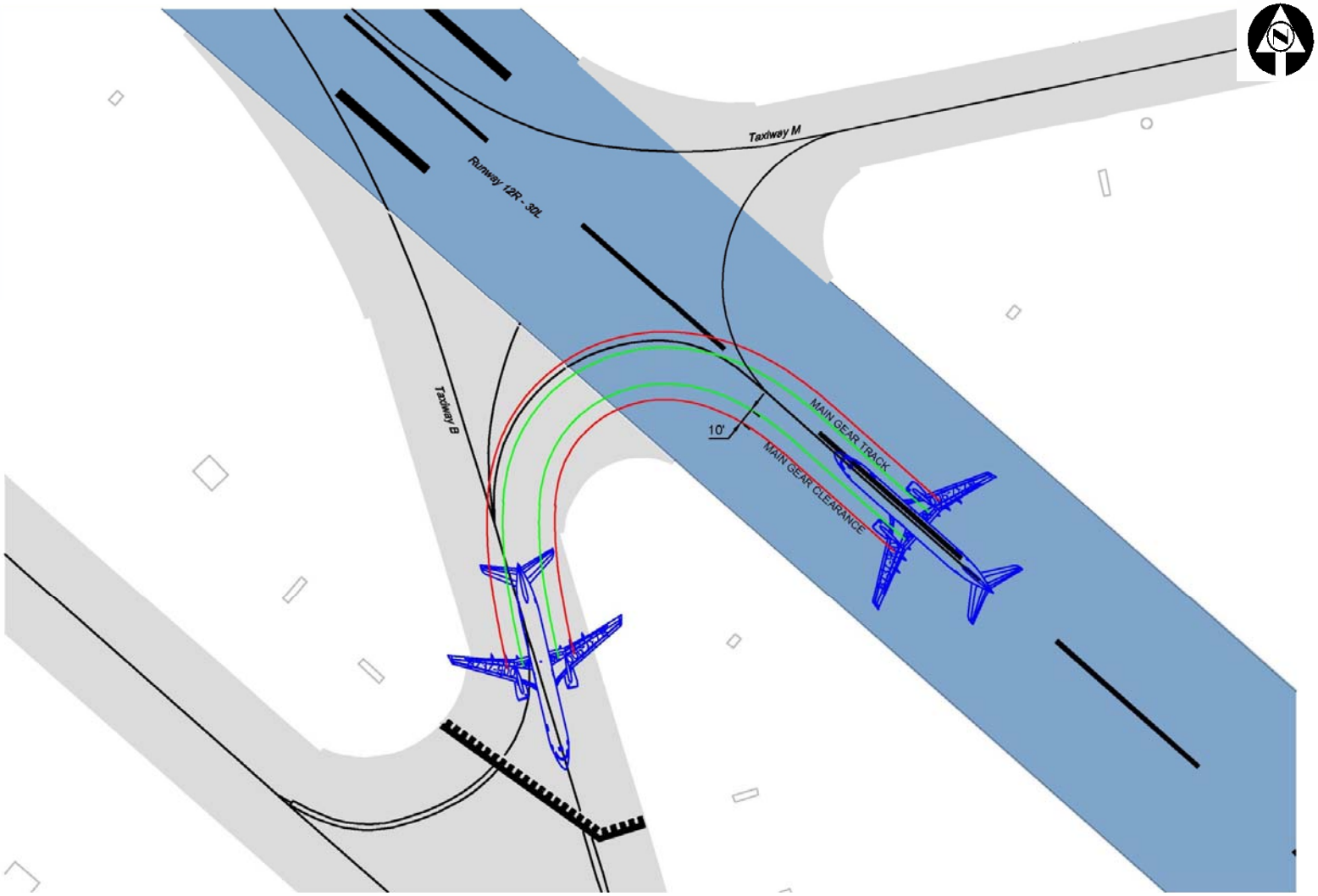


Figure G-10: Taxiway B Group IV Aircraft – B757

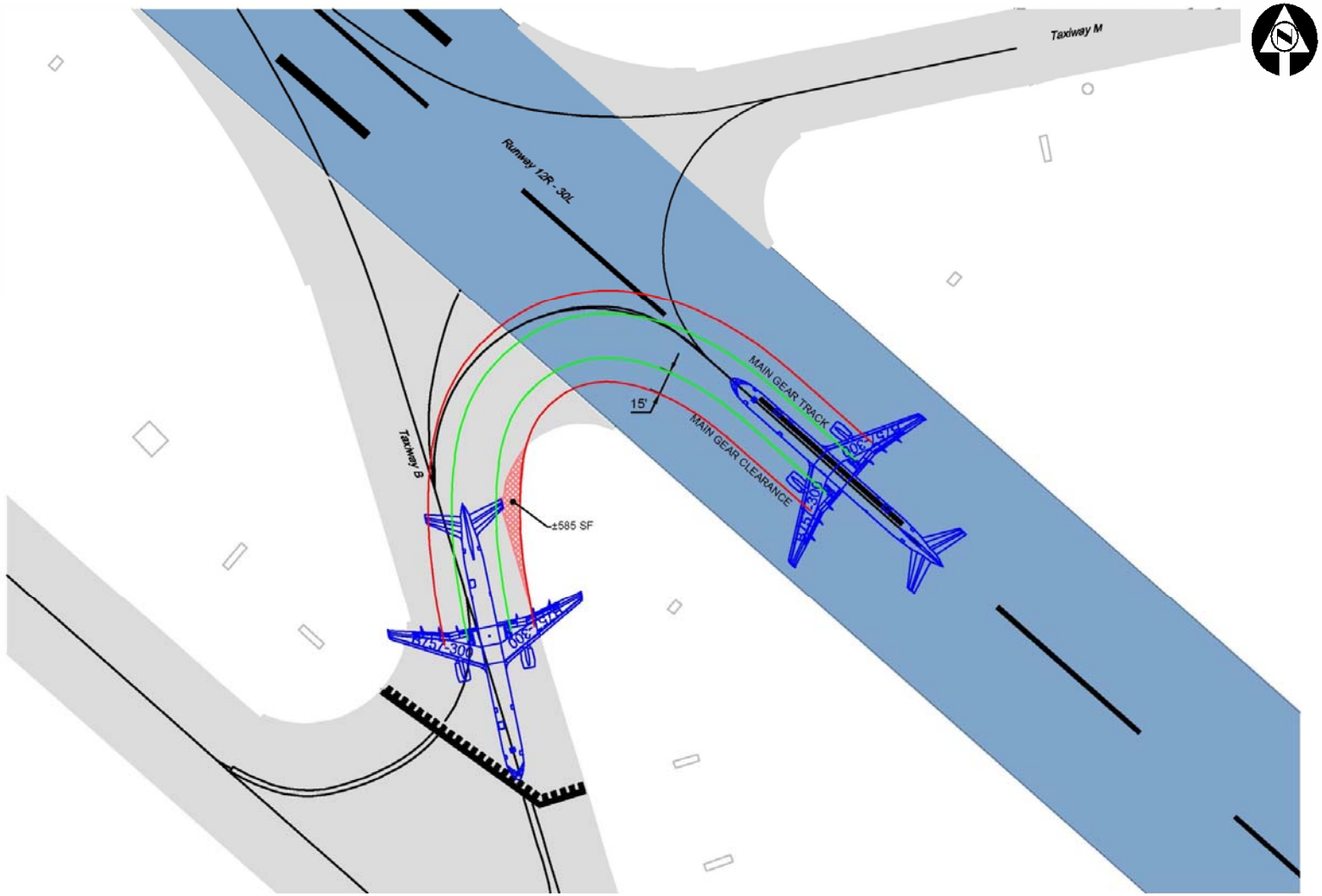


Figure G-11: Taxiway B Group IV Aircraft – B757

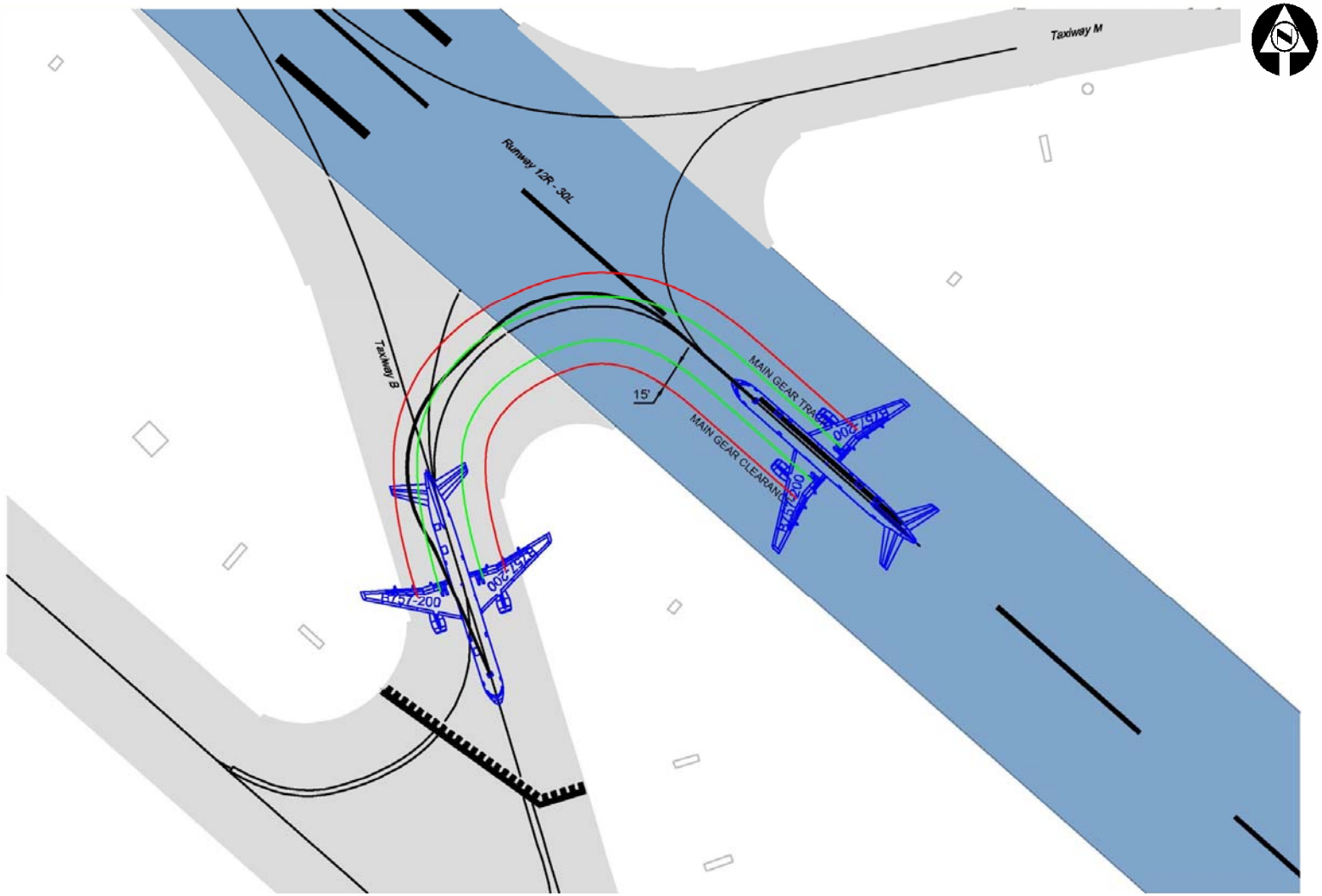


Figure G-12: Taxiway B Group IV Aircraft – B767

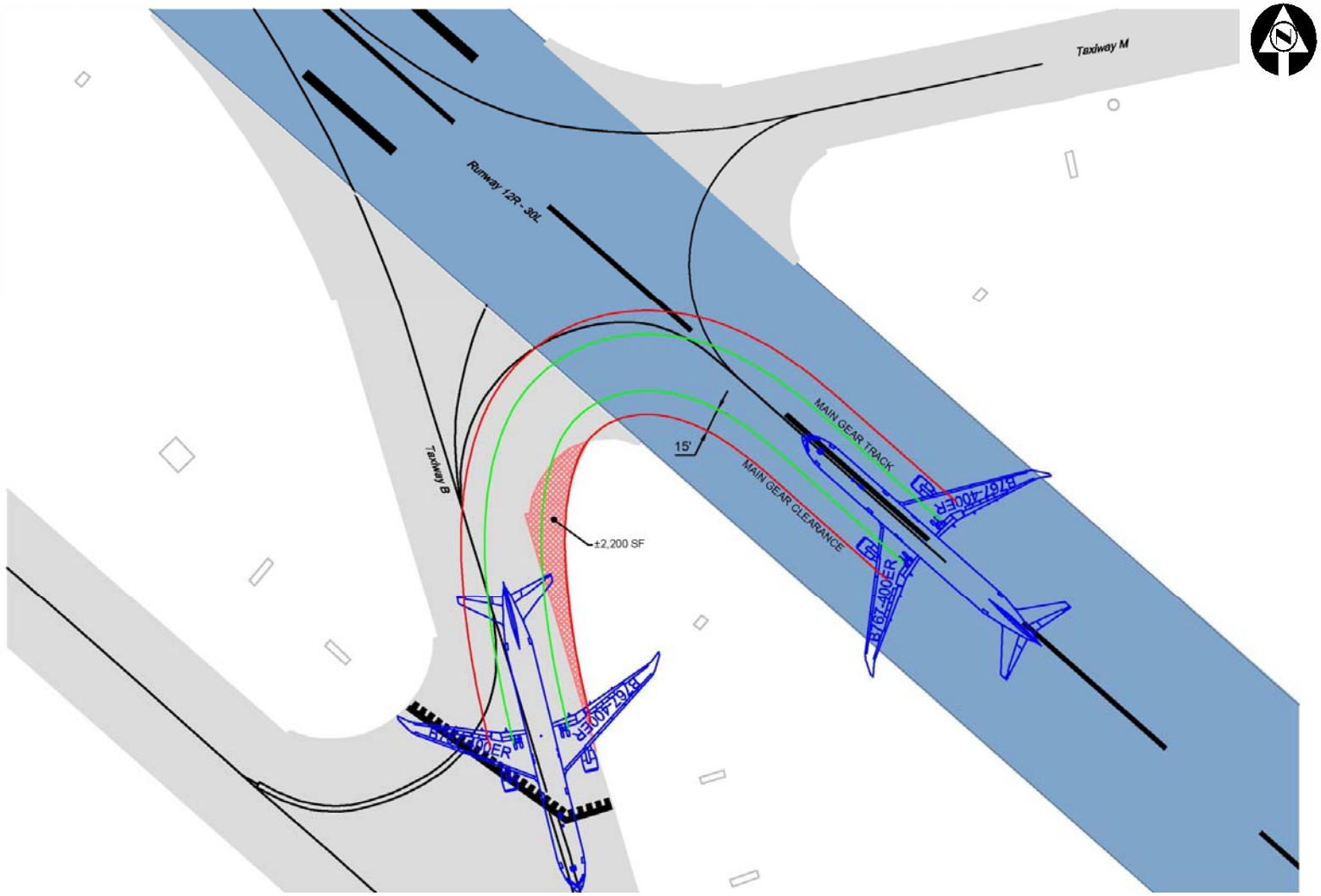


Figure G-13: Taxiway B Group IV Aircraft – B767 Oversteer

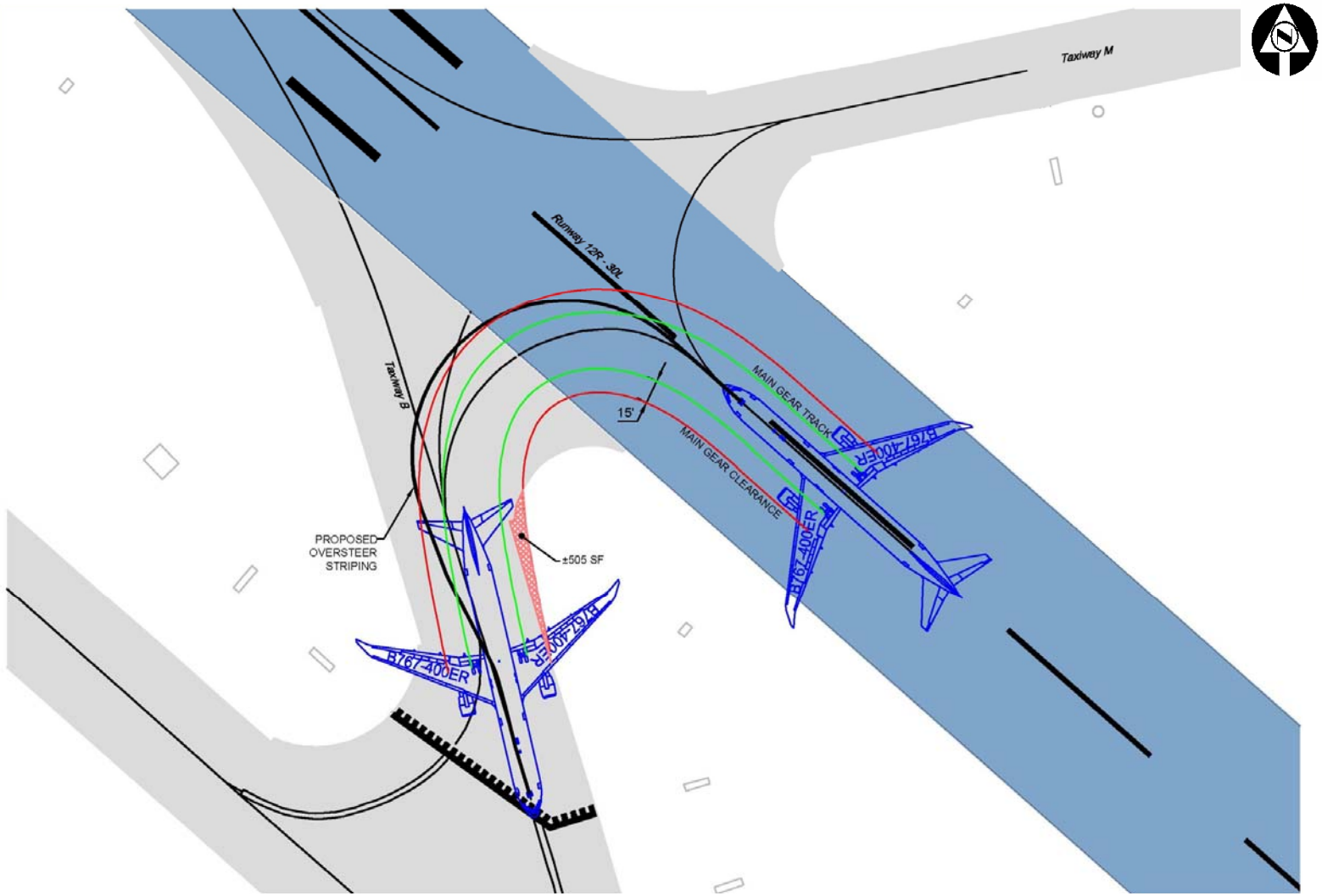


Figure G-14: Taxiway B Group V Aircraft

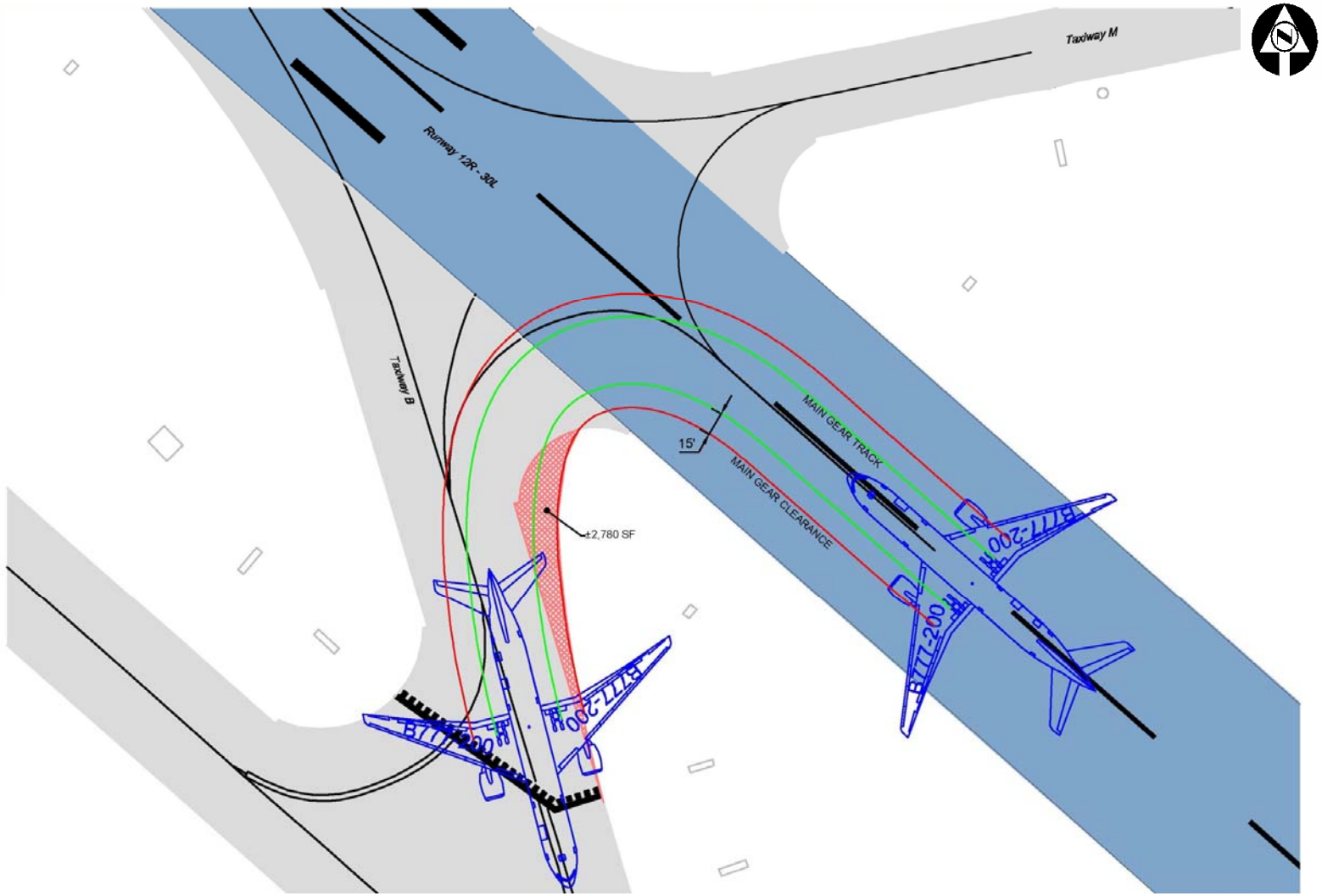


Figure G-15: Taxiway B Group V Aircraft – Oversteer

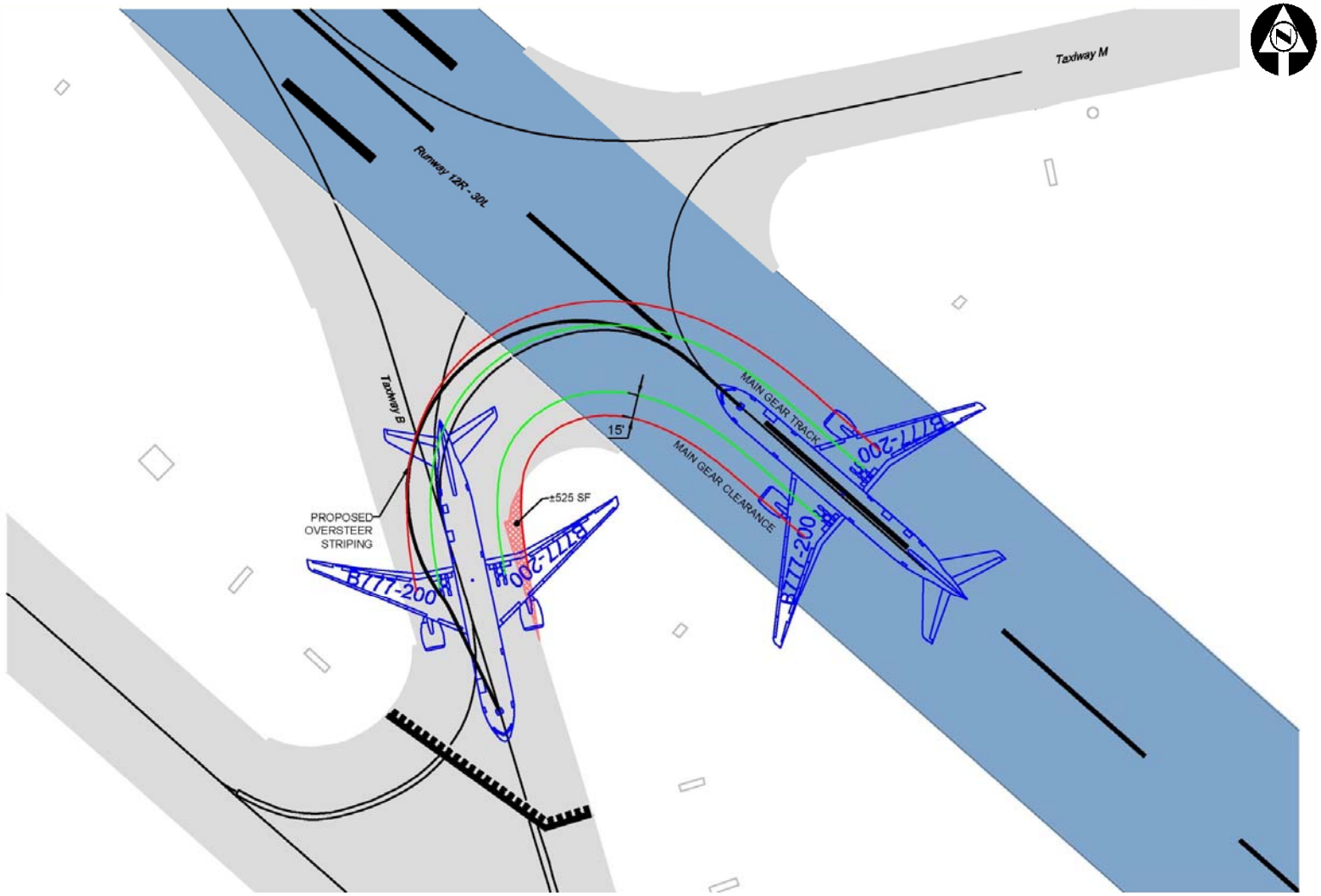
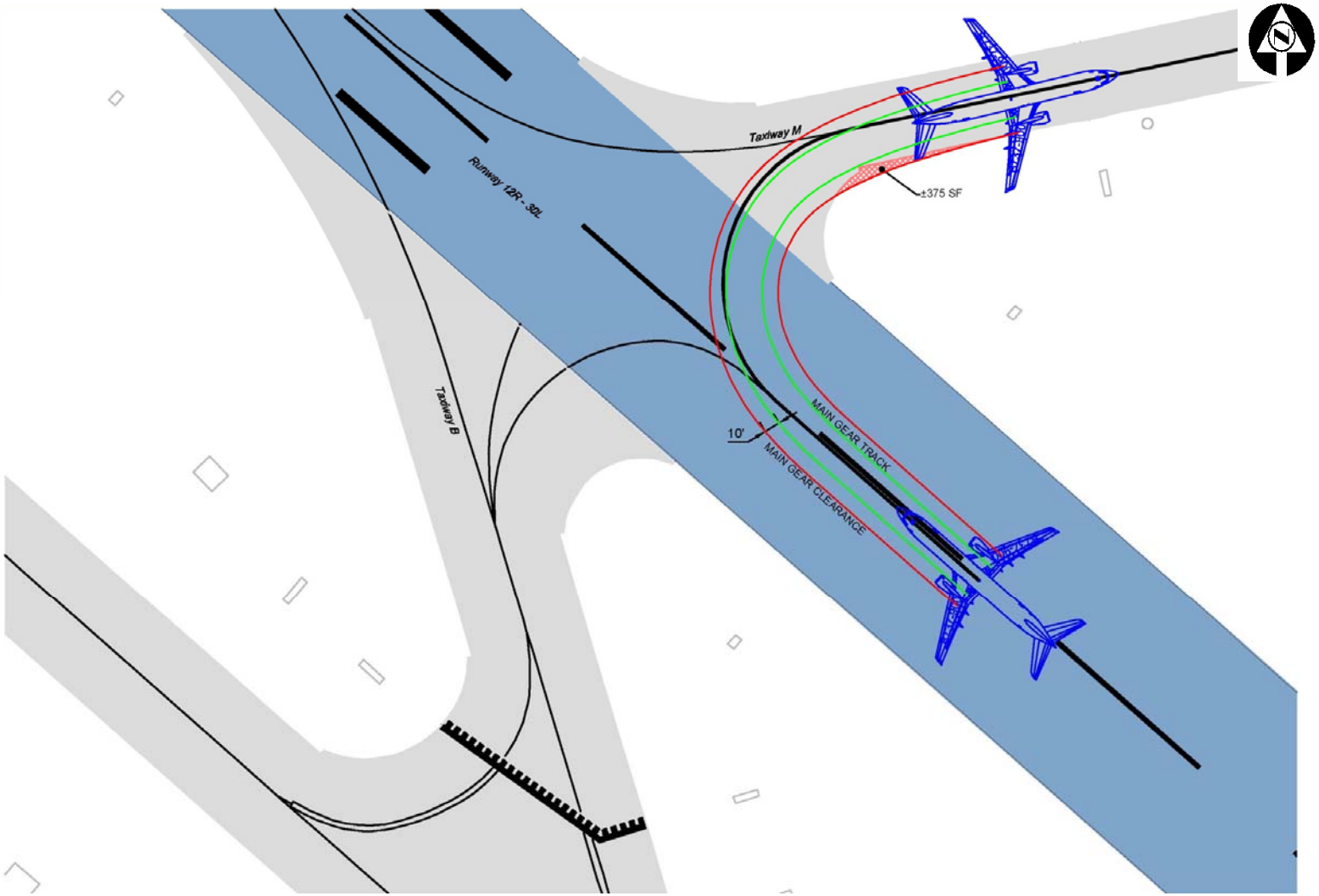


Figure G-16: Taxiway M Group III Aircraft



APPENDIX H

TERMINAL A PROPOSED SECURE CONNECTOR

Figure H-1: Upper Level

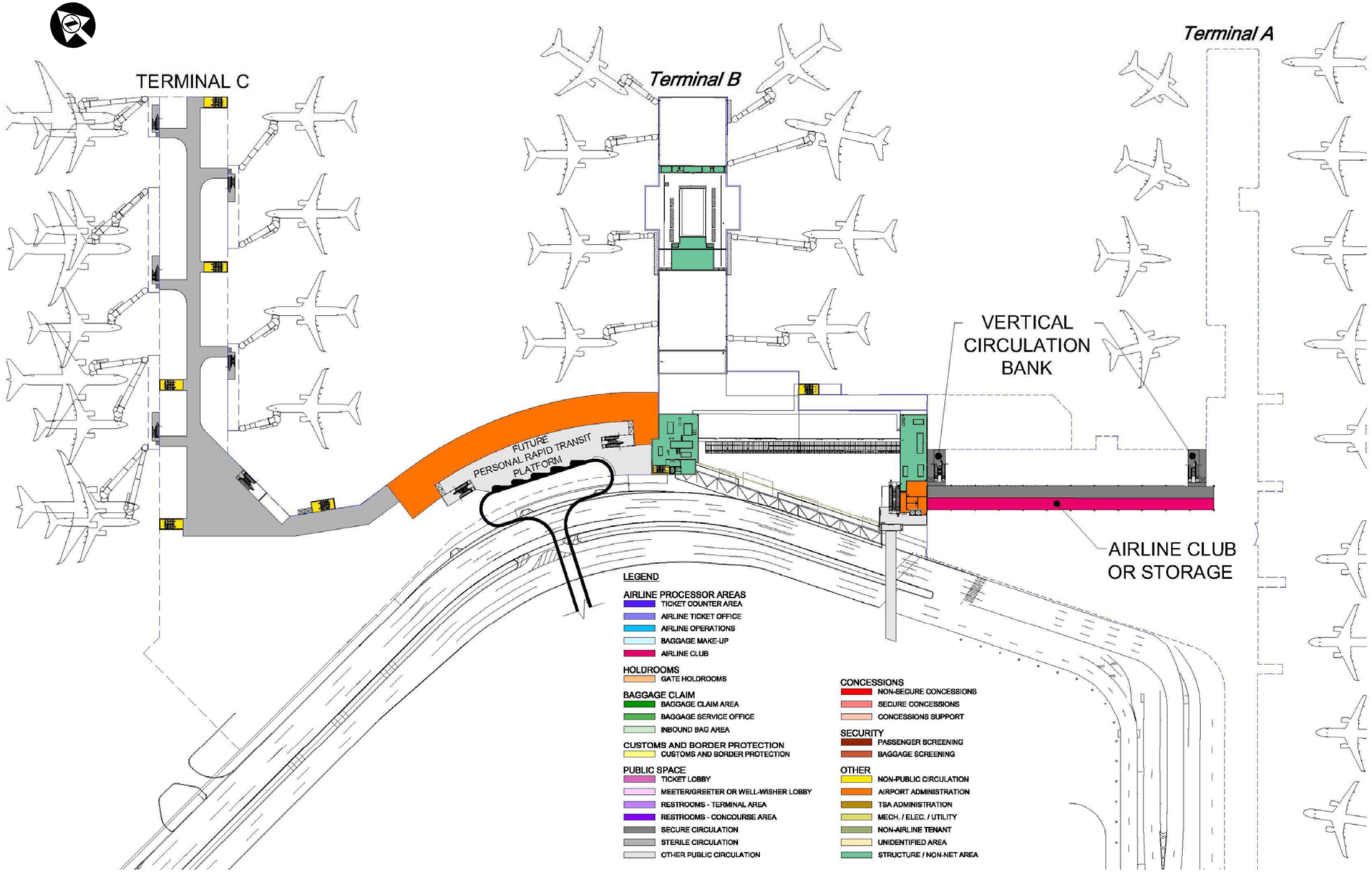
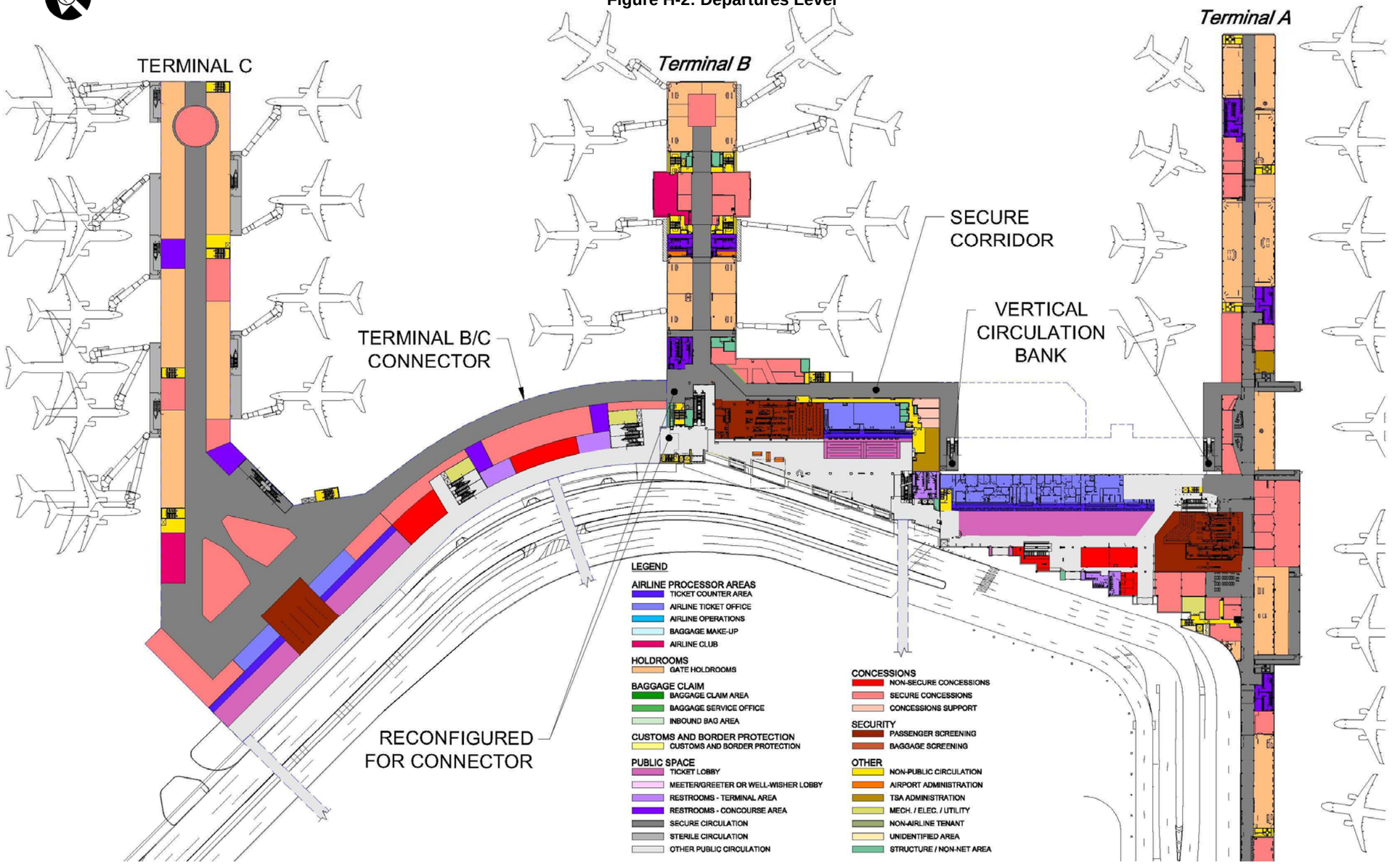


Figure H-2: Departures Level



APPENDIX I

TERMINAL C SPACE REQUIREMENTS COMPARISON

Table I-1: Terminal C Space Requirements Comparison

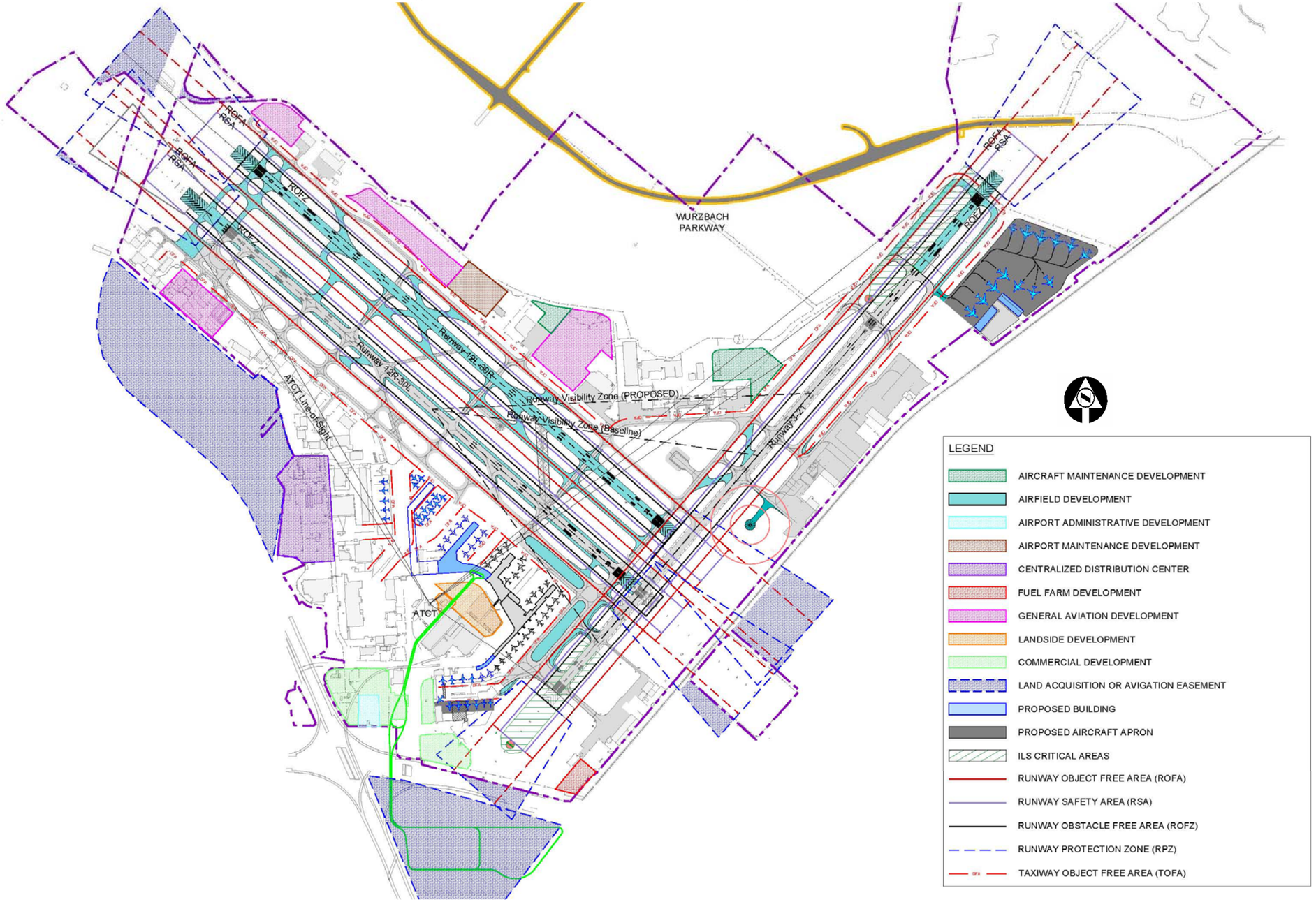
Terminal C			
AIRLINE PROCESSOR AREAS	**Planned[1]**	**Programmed[1]**	**% Deviation**
Agent Positions (number)	14	TBD	-
Ticket Counter Length (linear feet)	70	TBD	-
Ticket Counter Area (square feet)	700	2,940	420%
ATO Offices (square feet)	3,416	3,500	102%
Airline Operations Space (square feet)	3,491	19,180	549%
Baggage Makeup Area (square feet)	8,540	15,720	184%
Airline Clubs (square feet)	2,135	2,550	119%
Subtotal (square feet)	18,281	43,890	240%
AIRCRAFT GATES			
Widebody Aircraft (number)	-	-	-
Large Narrowbody Aircraft (number)	-	-	-
Narrowbody Aircraft (number)	6.0	9.0	150%
Subtotal (number)	6.0	9.0	150%
Equivalent Aircraft (EQA) Index	8.4	12.6	150%
HOLDROOMS			
Widebody Aircraft (square feet)	-	-	-
Large Narrowbody Aircraft (square feet)	-	-	-
Narrowbody Aircraft (square feet)	12,000	29,590	247%
Subtotal (square feet)	12,000	29,590	247%
BAGGAGE CLAIM			
Claim Frontage (linear feet)	622	622	0%
Claim Units[1] (number)	4	4	0%
Claim Area (square feet)	15,560	18,650	120%
Baggage Service Offices (square feet)	1,167	1,000	86%
Inbound Bag Area (square feet)	9,336	3,550	-163%
Subtotal (square feet)	26,063	23,200	89%
CBP			
Customs and Border Protection (FIS) (square feet)	40,000	36,480	-10%
Subtotal (square feet)	40,000	36,480	-10%
PUBLIC SPACE			
Ticket Lobby (includes queuing) (square feet)	5,124	8,830	172%
Meeter/Greeter Lobby (square feet)	1,587	-	-
Restrooms - Terminal Area (square feet)	1,786	4,260	239%
Restrooms - Concourse Area (square feet)	2,135	4,950	232%
Secure Circulation (square feet)	9,000	72,620	807%
Sterile Circulation (square feet)	12,750	46,120	362%
Other Public Circulation (square feet)	5,890	84,320	1432%
Miscellaneous (square feet).	2,000	2,000	0%
Subtotal (square feet)	40,271	223,100	554%
CONCESSIONS			
Ground Transportation Services (square feet)	467	TBD	-
Concessions: Non-Secure (square feet)	2,135	10,920	511%
Concessions: Secure (square feet)	4,296	34,660	807%
Loading Dock (square feet)	365	TBD	-
Concessions Support (square feet)	1,608	3,530	220%
Subtotal (square feet)	8,870	49,110	554%
SECURITY			
Passenger Screening Lanes (number)	3	TBD	-
Passenger Screening Lane Space (square feet)	4,500	6,400	142%
Baggage Screening Space (square feet)	5,000	10,520	210%
Baggage Screening Equipment (EDS)	2	TBD	-
Subtotal (square feet)	9,500	16,920	178%
OTHER			
Non-Public Circulation (square feet)	17,000	9,800	-73%
Airport Maintenance (square feet)	1,750	-	-
Airport Administration (square feet)	10,000	19,690	197%
TSA Administration (square feet)	2,000	-	-
Mechanical/Electrical/Utility (square feet)	21,000	23,740	113%
Janitorial/Storage/Shops (square feet)	2,000	-	-
Non-Airline Tenant (square feet)	1,000	-	-
Unidentified Areas (square feet)	-	-	-
Structure/non-net areas (square feet)	13,500	-	-
Subtotal (square feet)	68,250	53,230	-28%
Total Square Footage	**223,236**	**475,520**	**213%**
Total Square Footage (Rounded)	**223,000**	**476,000**	**213%**

[1] Planned includes six gates, and programmed includes the full build-out of nine gates.
[2] "Other" areas are estimated.

APPENDIX J

FAA PLANNING SURFACES AND SAFETY AREAS

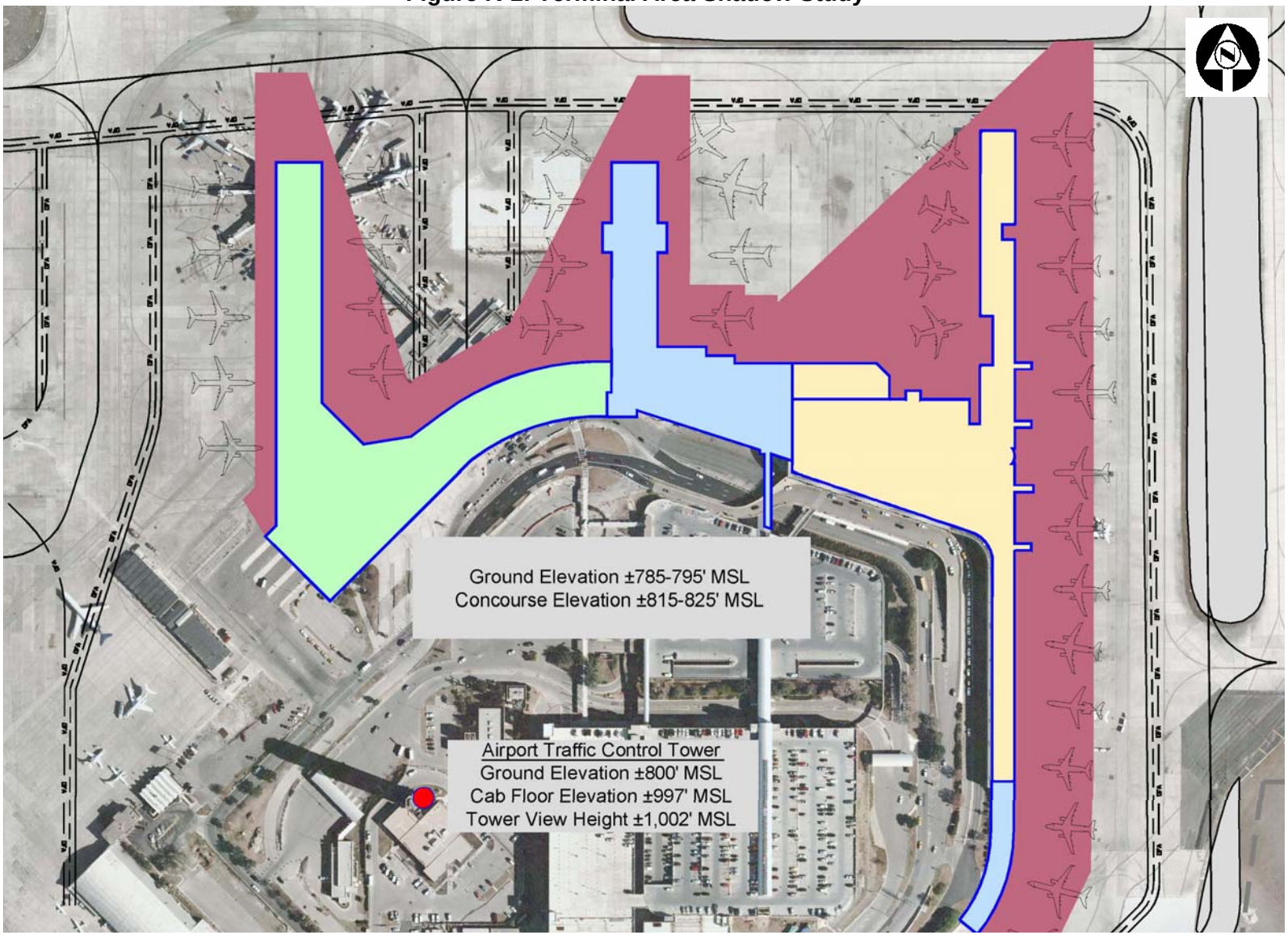
Figure J-1: FAA Planning Surfaces and Safety Areas



APPENDIX K

TERMINAL AREA SHADOW STUDY

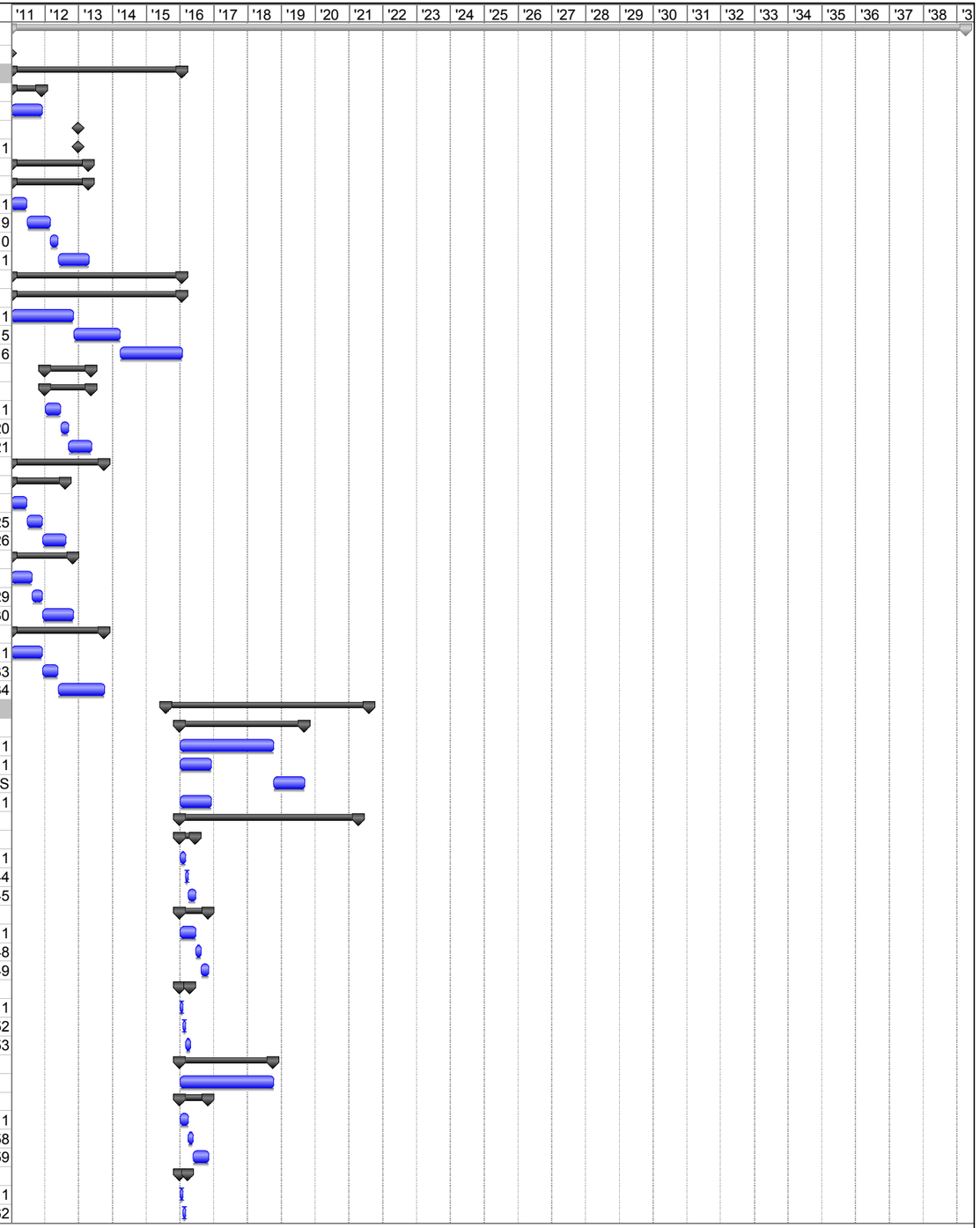
Figure K-1: Terminal Area Shadow Study



APPENDIX L

DETAILED IMPLEMENTATION SCHEDULE

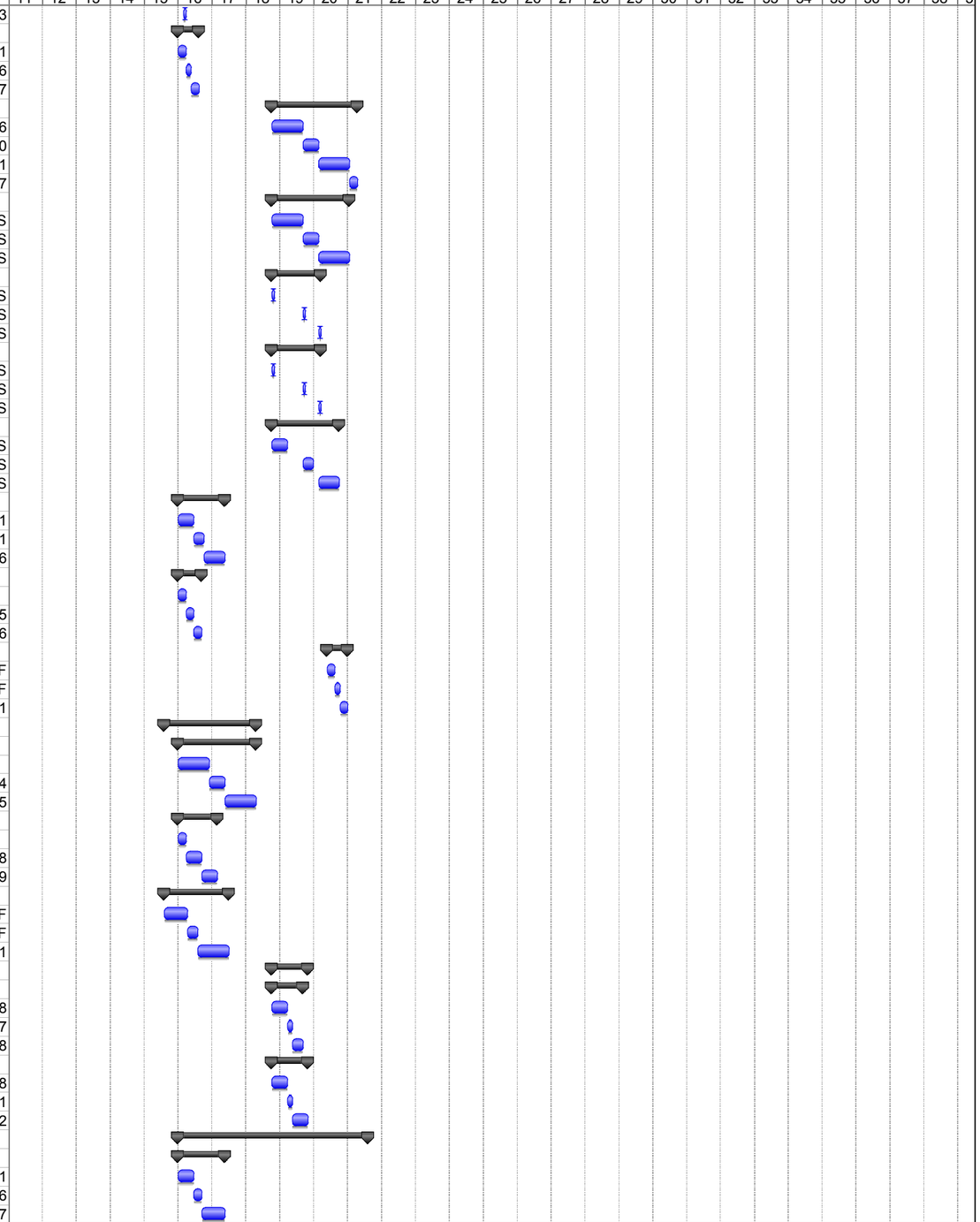
ID	Task Name	Duration	Start	Finish	Predecessors
0	**SAT MP Schedule**	**368.85 mons**	**Sat 1/1/11**	**Tue 4/12/39**	
1	**Begin Program Implementation**	**0 mons**	**Sat 1/1/11**	**Sat 1/1/11**	
2	**Short-Term Improvement (1-5 Years)**	**66 mons**	**Mon 1/3/11**	**Fri 1/22/16**	
3	**Land Acquisition**	**12 mons**	**Mon 1/3/11**	**Fri 12/2/11**	
4	LA1a – Acquire parcels for rental car maintenance and storage facility	12 mons	Mon 1/3/11	Fri 12/2/11	
5	**Airfield Development**	**0 mons**	**Mon 12/31/12**	**Mon 12/31/12**	
6	BL - Extend Runway 3-21 to 8,500'	0 mons	Mon 12/31/12	Mon 12/31/12	1
7	**Commercial Passenger Terminal Development**	**30 mons**	**Mon 1/3/11**	**Fri 4/19/13**	
8	T1 - Terminal A re-lifing	30 mons	Mon 1/3/11	Fri 4/19/13	
9	Conduct detailed terminal study	6 mons	Mon 1/3/11	Fri 6/17/11	1
10	Design	9 mons	Mon 6/20/11	Fri 2/24/12	9
11	Permitting	3 mons	Mon 2/27/12	Fri 5/18/12	10
12	Construction	12 mons	Mon 5/21/12	Fri 4/19/13	11
13	**Landside Development**	**66 mons**	**Mon 1/3/11**	**Fri 1/22/16**	
14	L1 - Construct CONRAC/parking facility	66 mons	Mon 1/3/11	Fri 1/22/16	
15	Design	24 mons	Mon 1/3/11	Fri 11/2/12	1
16	Permitting	18 mons	Mon 11/5/12	Fri 3/21/14	15
17	Construction	24 mons	Mon 3/24/14	Fri 1/22/16	16
18	**Commercial Aviation Development**	**18 mons**	**Mon 1/2/12**	**Fri 5/17/13**	
19	CA1 - Prepare north side commercial aviation site for development	18 mons	Mon 1/2/12	Fri 5/17/13	
20	Design	6 mons	Mon 1/2/12	Fri 6/15/12	1
21	Permitting	3 mons	Mon 6/18/12	Fri 9/7/12	20
22	Construction	9 mons	Mon 9/10/12	Fri 5/17/13	21
23	**Airline and Airport Support**	**36 mons**	**Mon 1/3/11**	**Fri 10/4/13**	
24	S1 - Relocate airport maintenance facilities - Phase 1	21 mons	Mon 1/3/11	Fri 8/10/12	
25	Design	6 mons	Mon 1/3/11	Fri 6/17/11	
26	Permitting	6 mons	Mon 6/20/11	Fri 12/2/11	25
27	Construction	9 mons	Mon 12/5/11	Fri 8/10/12	26
28	S2 - Rehabilitate West Cargo Building	24 mons	Mon 1/3/11	Fri 11/2/12	
29	Design	8 mons	Mon 1/3/11	Fri 8/12/11	
30	Permitting	4 mons	Mon 8/15/11	Fri 12/2/11	29
31	Construction	12 mons	Mon 12/5/11	Fri 11/2/12	30
32	S3 - Construct airport administration office building	36 mons	Mon 1/3/11	Fri 10/4/13	
33	Design	12 mons	Mon 1/3/11	Fri 12/2/11	1
34	Permitting	6 mons	Mon 12/5/11	Fri 5/18/12	33
35	Construction	18 mons	Mon 5/21/12	Fri 10/4/13	34
36	**Intermediate-Term Improvement (6-10 Years)**	**78.6 mons**	**Mon 8/3/15**	**Tue 8/10/21**	
37	**Land Acquisition**	**48 mons**	**Fri 1/1/16**	**Thu 9/5/19**	
38	LA1b - Acquire parcels between 281, 410 and rail right of way	36 mons	Fri 1/1/16	Thu 10/4/18	1
39	LA2 - Acquire parcels for existing RPZ encroachments	12 mons	Fri 1/1/16	Thu 12/1/16	1
40	LA3 - Acquire parcels for upgraded Runway 12L-30R RPZ encroachments	12 mons	Fri 10/5/18	Thu 9/5/19	1,70SS
41	LA4 - Acquire parcels for shifted Rwy 12R-30L RPZ encroachments	12 mons	Fri 1/1/16	Thu 12/1/16	1
42	**Airfield Development**	**69 mons**	**Fri 1/1/16**	**Thu 4/15/21**	
43	A1 - Shift Taxiway H & pave the grass area between Concourse A and Taxiway G	6 mons	Fri 1/1/16	Thu 6/16/16	
44	Design	2 mons	Fri 1/1/16	Thu 2/25/16	1
45	Permitting	1 mon	Fri 2/26/16	Thu 3/24/16	44
46	Construction	3 mons	Fri 3/25/16	Thu 6/16/16	45
47	A2 - Shift Taxiway N & pave grass area (includes Taxiways E, F, and G improvements)	11 mons	Fri 1/1/16	Thu 11/3/16	
48	Design	6 mons	Fri 1/1/16	Thu 6/16/16	1
49	Permitting	2 mons	Fri 6/17/16	Thu 8/11/16	48
50	Construction	3 mons	Fri 8/12/16	Thu 11/3/16	49
51	A3 - Construct high-speed fillets on Taxiways B and L	4 mons	Fri 1/1/16	Thu 4/21/16	
52	Design	1 mon	Fri 1/1/16	Thu 1/28/16	1
53	Permitting	1 mon	Fri 1/29/16	Thu 2/25/16	52
54	Construction	2 mons	Fri 2/26/16	Thu 4/21/16	53
55	A4 - Upgrade Runway 12L-30R (EIS and justification planning only)	36 mons	Fri 1/1/16	Thu 10/4/18	
56	Environmental Impact Statement	36 mons	Fri 1/1/16	Thu 10/4/18	
57	A5 - Upgrade Taxiway E to ADG V standards	11 mons	Fri 1/1/16	Thu 11/3/16	
58	Design	3 mons	Fri 1/1/16	Thu 3/24/16	1
59	Permitting	2 mons	Fri 3/25/16	Thu 5/19/16	58
60	Construction	6 mons	Fri 5/20/16	Thu 11/3/16	59
61	A6 - Demolish Taxiway B between Taxiways G and H	3 mons	Fri 1/1/16	Thu 3/24/16	
62	Design	1 mon	Fri 1/1/16	Thu 1/28/16	1
63	Permitting	1 mon	Fri 1/29/16	Thu 2/25/16	62



Project: SAT MP Schedule
Date: Wed 10/6/10

Task | Milestone | Rolled Up Task | Rolled Up Progress | External Tasks | Group By Summary
Progress | Summary | Rolled Up Milestone | Split | Project Summary | Deadline

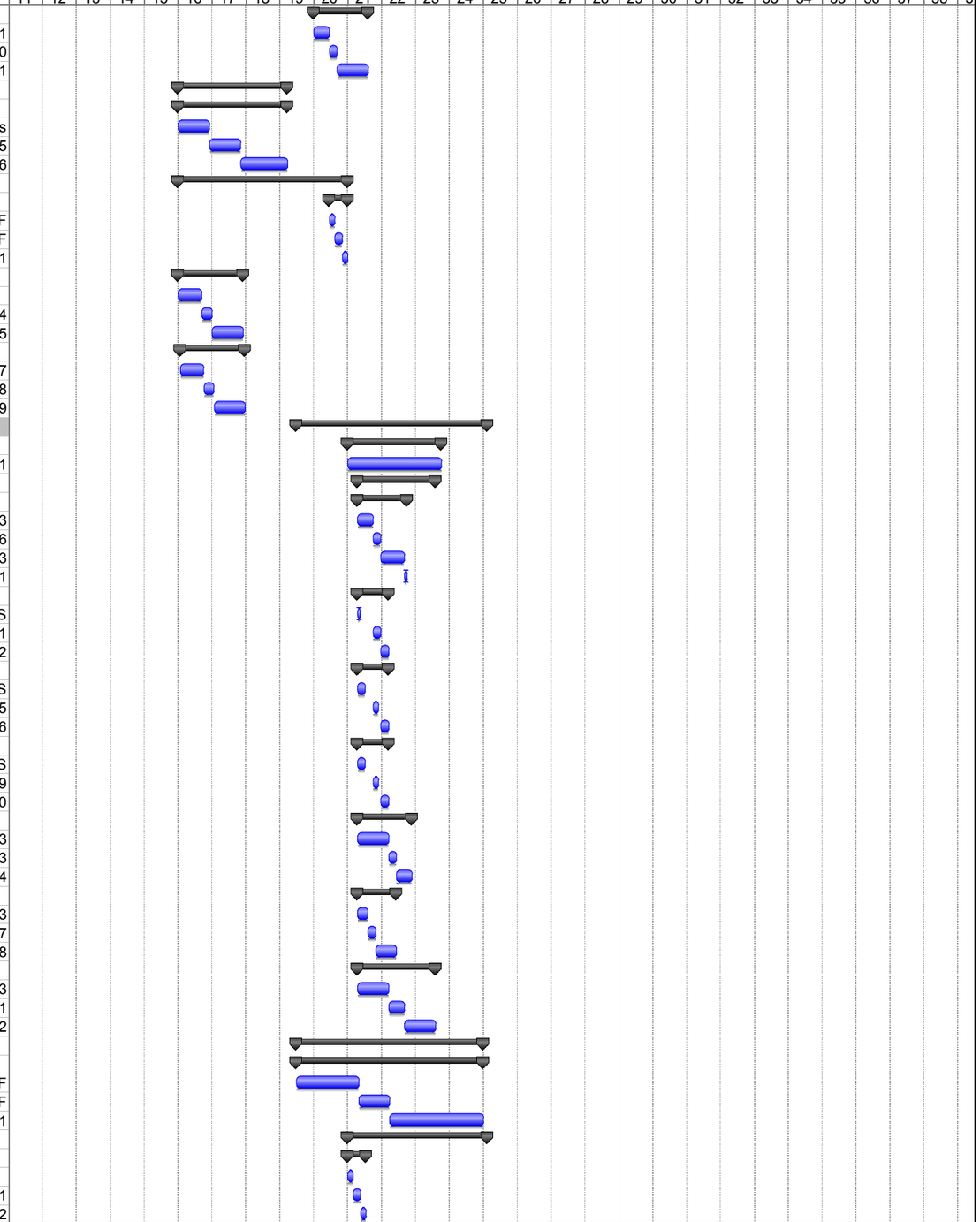
ID	Task Name	Duration	Start	Finish	Predecessors
64	Construction	1 mon	Fri 2/26/16	Thu 3/24/16	63
65	A7 - Construct high-speed exit for Runway 30L	8 mons	Fri 1/1/16	Thu 8/11/16	
66	Design	3 mons	Fri 1/1/16	Thu 3/24/16	1
67	Permitting	2 mons	Fri 3/25/16	Thu 5/19/16	66
68	Construction	3 mons	Fri 5/20/16	Thu 8/11/16	67
69	A8 - Upgrade Runway 12L-30R (Design and Construction)	33 mons	Fri 10/5/18	Thu 4/15/21	
70	Design	12 mons	Fri 10/5/18	Thu 9/5/19	56
71	Permitting	6 mons	Fri 9/6/19	Thu 2/20/20	70
72	Construction	12 mons	Fri 2/21/20	Thu 1/21/21	71
73	Commission Runway	3 mons	Fri 1/22/21	Thu 4/15/21	72,77
74	A9 - Construct/upgrade full length parallel taxiway system	30 mons	Fri 10/5/18	Thu 1/21/21	
75	Design	12 mons	Fri 10/5/18	Thu 9/5/19	70SS
76	Permitting	6 mons	Fri 9/6/19	Thu 2/20/20	75,71SS
77	Construction	12 mons	Fri 2/21/20	Thu 1/21/21	76,72SS
78	A10 - Demolish Taxiway M between Runways 12L-30R and 12R-30L	19 mons	Fri 10/5/18	Thu 3/19/20	
79	Design	1 mon	Fri 10/5/18	Thu 11/1/18	70SS
80	Permitting	1 mon	Fri 9/6/19	Thu 10/3/19	79,71SS
81	Construction	1 mon	Fri 2/21/20	Thu 3/19/20	80,72SS
82	A11 - Demolish Taxiway P between Runways 12L-30R and 12R-30L	19 mons	Fri 10/5/18	Thu 3/19/20	
83	Design	1 mon	Fri 10/5/18	Thu 11/1/18	70SS
84	Permitting	1 mon	Fri 9/6/19	Thu 10/3/19	83,71SS
85	Construction	1 mon	Fri 2/21/20	Thu 3/19/20	84,72SS
86	A12 - Install CAT I ILS system on Runway 12L-30R	26 mons	Fri 10/5/18	Thu 10/1/20	
87	Design	6 mons	Fri 10/5/18	Thu 3/21/19	70SS
88	Permitting	4 mons	Fri 9/6/19	Thu 12/26/19	87,71SS
89	Construction	8 mons	Fri 2/21/20	Thu 10/1/20	88,72SS
90	A13 - Install CAT I ILS system on Runway 3-21	18 mons	Fri 1/1/16	Thu 5/18/17	
91	Design	6 mons	Fri 1/1/16	Thu 6/16/16	1
92	Permitting	4 mons	Fri 6/17/16	Thu 10/6/16	91
93	Construction	8 mons	Fri 10/7/16	Thu 5/18/17	92,6
94	A14 - Relocate compass calibration pad	9 mons	Fri 1/1/16	Thu 9/8/16	
95	Design	3 mons	Fri 1/1/16	Thu 3/24/16	
96	Permitting	3 mons	Fri 3/25/16	Thu 6/16/16	95
97	Construction	3 mons	Fri 6/17/16	Thu 9/8/16	96
98	A15 - Construct high-speed exit taxiways for Runway 3-21	8 mons	Fri 5/22/20	Thu 12/31/20	
99	Design	3 mons	Fri 5/22/20	Fri 8/14/20	100SF
100	Permitting	2 mons	Fri 8/14/20	Fri 10/9/20	101SF
101	Construction	3 mons	Fri 10/9/20	Thu 12/31/20	1
102	**Commercial Passenger Terminal Development**	**35.45 mons**	**Mon 8/3/15**	**Thu 4/19/18**	
103	T2 - Terminal A widening	30 mons	Fri 1/1/16	Thu 4/19/18	
104	Design	12 mons	Fri 1/1/16	Thu 12/1/16	
105	Permitting	6 mons	Fri 12/2/16	Thu 5/18/17	104
106	Construction	12 mons	Fri 5/19/17	Thu 4/19/18	105
107	T3 - Expand south RON Apron	15 mons	Fri 1/1/16	Thu 2/23/17	
108	Design	3 mons	Fri 1/1/16	Thu 3/24/16	
109	Permitting	6 mons	Fri 3/25/16	Thu 9/8/16	108
110	Construction	6 mons	Fri 9/9/16	Thu 2/23/17	109
111	T4 - Concourse A gate expansion (two gates)	25 mons	Mon 8/3/15	Fri 6/30/17	
112	Design	9 mons	Mon 8/3/15	Mon 4/11/16	113SF
113	Permitting	4 mons	Mon 4/11/16	Mon 8/1/16	114SF
114	Construction	12 mons	Mon 8/1/16	Fri 6/30/17	1
115	**Landside Development**	**14 mons**	**Fri 10/5/18**	**Thu 10/31/19**	
116	L2 - Relocate employee lot south of Loop 410	12 mons	Fri 10/5/18	Thu 9/5/19	
117	Design	6 mons	Fri 10/5/18	Thu 3/21/19	1,38
118	Permitting	2 mons	Fri 3/22/19	Thu 5/16/19	117
119	Construction	4 mons	Fri 5/17/19	Thu 9/5/19	118
120	L3 - Relocate economy lot south of Loop 410	14 mons	Fri 10/5/18	Thu 10/31/19	
121	Design	6 mons	Fri 10/5/18	Thu 3/21/19	1,38
122	Permitting	2 mons	Fri 3/22/19	Thu 5/16/19	121
123	Construction	6 mons	Fri 5/17/19	Thu 10/31/19	122
124	**Commercial Aviation Development**	**73.15 mons**	**Fri 1/1/16**	**Tue 8/10/21**	
125	CA2 - Commercial aviation development	18 mons	Fri 1/1/16	Thu 5/18/17	
126	Design	6 mons	Fri 1/1/16	Thu 6/16/16	1
127	Permitting	3 mons	Fri 6/17/16	Thu 9/8/16	126
128	Construction	9 mons	Fri 9/9/16	Thu 5/18/17	127



Project: SAT MP Schedule
Date: Wed 10/6/10

Task | Milestone | Rolled Up Task | Rolled Up Progress | External Tasks | Group By Summary
Progress | Summary | Rolled Up Milestone | Split | Project Summary | Deadline

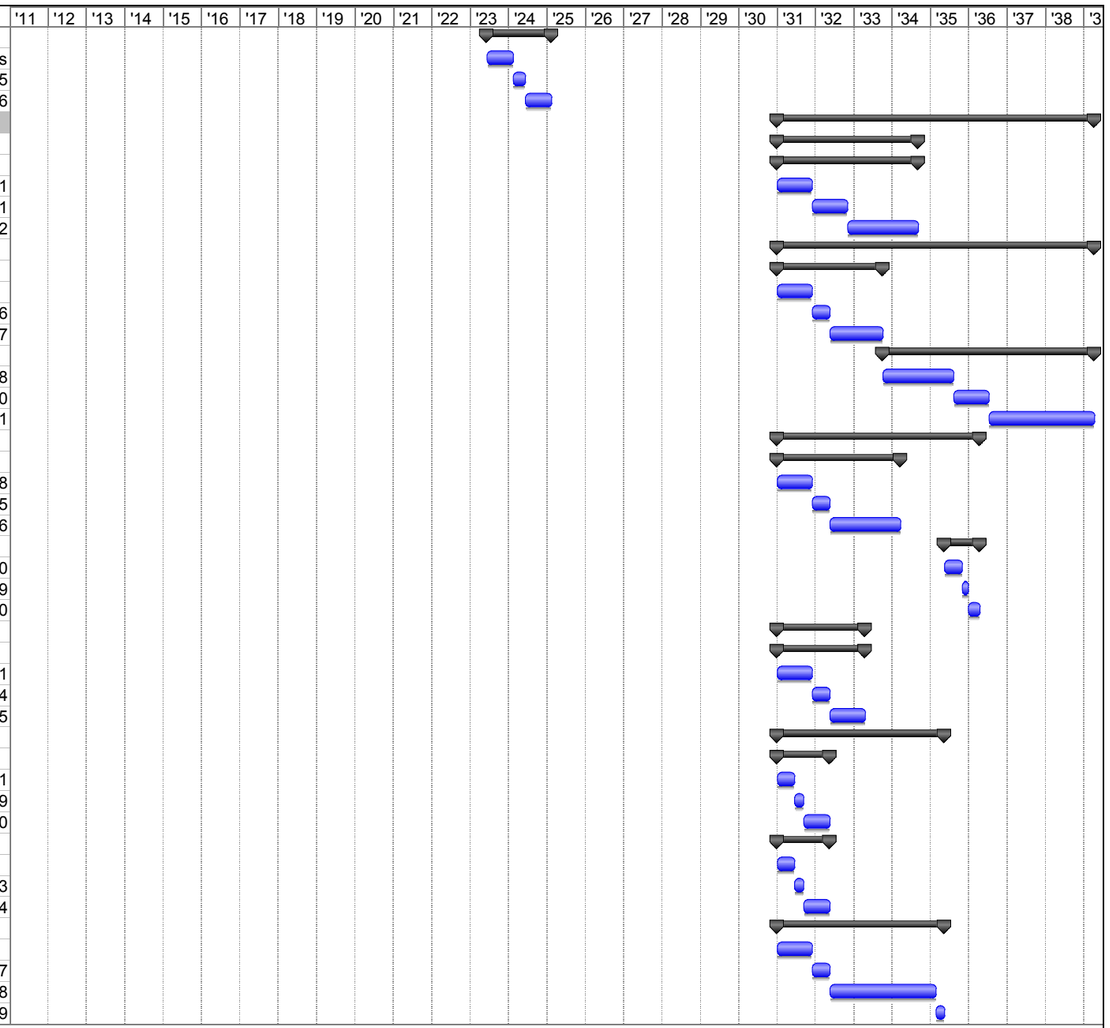
ID	Task Name	Duration	Start	Finish	Predecessors
129	GA1 - Redevelop GA CBP and other GA facilities	21 mons	Wed 1/1/20	Tue 8/10/21	
130	Design	6 mons	Wed 1/1/20	Tue 6/16/20	1
131	Permitting	3 mons	Wed 6/17/20	Tue 9/8/20	130
132	Construction	12 mons	Wed 9/9/20	Tue 8/10/21	131
133	**Air Cargo Development**	**42 mons**	**Fri 1/1/16**	**Thu 3/21/19**	
134	C1 - Develop the north air cargo complex	42 mons	Fri 1/1/16	Thu 3/21/19	
135	Design	12 mons	Fri 1/1/16	Thu 12/1/16	1FS+18 mons
136	Permitting	12 mons	Fri 12/2/16	Thu 11/2/17	135
137	Construction	18 mons	Fri 11/3/17	Thu 3/21/19	136
138	**Airline and Airport Support**	**65.25 mons**	**Fri 1/1/16**	**Thu 12/31/20**	
139	S4 - Expand tenant GSE maintenance and storage facilities	7 mons	Fri 6/19/20	Thu 12/31/20	
140	Design	2 mons	Fri 6/19/20	Fri 8/14/20	141SF
141	Permitting	3 mons	Fri 8/14/20	Fri 11/6/20	142SF
142	Construction	2 mons	Fri 11/6/20	Thu 12/31/20	1
143	S5 - Expand commercial carriers fuel farm - Phase 1	25 mons	Fri 1/1/16	Thu 11/30/17	
144	Design	9 mons	Fri 1/1/16	Thu 9/8/16	
145	Permitting	4 mons	Fri 9/9/16	Thu 12/29/16	144
146	Construction	12 mons	Fri 12/30/16	Thu 11/30/17	145
147	S6 - Construct a centralized concession distribution center	25 mons	Mon 1/25/16	Fri 12/22/17	
148	Design	9 mons	Mon 1/25/16	Fri 9/30/16	17
149	Permitting	4 mons	Mon 10/3/16	Fri 1/20/17	148
150	Construction	12 mons	Mon 1/23/17	Fri 12/22/17	149
151	**Long-Term Improvement (11-20 Years)**	**73.55 mons**	**Thu 6/27/19**	**Thu 2/13/25**	
152	**Land Acquisition**	**36 mons**	**Fri 1/1/21**	**Thu 10/5/23**	
153	LA5 - Acquire parcels west of the airport, between the airport property line and US 281	36 mons	Fri 1/1/21	Thu 10/5/23	1
154	**Airfield Development**	**30 mons**	**Fri 4/16/21**	**Thu 8/3/23**	
155	A16 - Shift Runway 12R-30L (decouple Rwy 3-21)	19 mons	Fri 4/16/21	Thu 9/29/22	
156	Design	6 mons	Fri 4/16/21	Thu 9/30/21	73
157	Permitting	3 mons	Fri 10/1/21	Thu 12/23/21	156
158	Construction	9 mons	Fri 12/24/21	Thu 9/1/22	157,93
159	Commission Runway	1 mon	Fri 9/2/22	Thu 9/29/22	158,41
160	A17 - Relocate the localizer on the 12R end to the outside of the new RSA	12 mons	Fri 4/16/21	Thu 3/17/22	
161	Design	1 mon	Fri 4/16/21	Thu 5/13/21	156SS
162	Permitting	3 mons	Fri 10/1/21	Thu 12/23/21	157SS,161
163	Construction	3 mons	Fri 12/24/21	Thu 3/17/22	158SS,162
164	A18 - Extend Taxiways G and H to the new extension of Runway 12R-30L	12 mons	Fri 4/16/21	Thu 3/17/22	
165	Design	3 mons	Fri 4/16/21	Thu 7/8/21	156SS
166	Permitting	2 mons	Fri 10/1/21	Thu 11/25/21	157SS,165
167	Construction	3 mons	Fri 12/24/21	Thu 3/17/22	158SS,166
168	A19 - Construct a connector taxiway adjacent to Taxiway N	12 mons	Fri 4/16/21	Thu 3/17/22	
169	Design	3 mons	Fri 4/16/21	Thu 7/8/21	156SS
170	Permitting	2 mons	Fri 10/1/21	Thu 11/25/21	157SS,169
171	Construction	3 mons	Fri 12/24/21	Thu 3/17/22	158SS,170
172	A20 - Install RNAV approach for Runway 12L-30R	21 mons	Fri 4/16/21	Thu 11/24/22	
173	Design	12 mons	Fri 4/16/21	Thu 3/17/22	1,73
174	Permitting	3 mons	Fri 3/18/22	Thu 6/9/22	173
175	Construction	6 mons	Fri 6/10/22	Thu 11/24/22	174
176	A21 - Rehab Runway 12R-30L and construct 35' shoulders	15 mons	Fri 4/16/21	Thu 6/9/22	
177	Design	4 mons	Fri 4/16/21	Thu 8/5/21	1,73
178	Permitting	3 mons	Fri 8/6/21	Thu 10/28/21	177
179	Construction	8 mons	Fri 10/29/21	Thu 6/9/22	178
180	A22 - Install NextGen navigational aids for runways	30 mons	Fri 4/16/21	Thu 8/3/23	
181	Design	12 mons	Fri 4/16/21	Thu 3/17/22	1,73
182	Permitting	6 mons	Fri 3/18/22	Thu 9/1/22	181
183	Construction	12 mons	Fri 9/2/22	Thu 8/3/23	182
184	**Commercial Passenger Terminal Development**	**72 mons**	**Thu 6/27/19**	**Wed 1/1/25**	
185	T5 - Construct Terminal C (six gates)	72 mons	Thu 6/27/19	Wed 1/1/25	
186	Design	24 mons	Thu 6/27/19	Thu 4/29/21	187SF
187	Permitting	12 mons	Thu 4/29/21	Thu 3/31/22	188SF
188	Construction	36 mons	Thu 3/31/22	Wed 1/1/25	1
189	**Airline and Airport Support Development**	**53.75 mons**	**Fri 1/1/21**	**Thu 2/13/25**	
190	S7 - Expand tenant GSE maintenance and storage facilities	7 mons	Fri 1/1/21	Thu 7/15/21	
191	Design	2 mons	Fri 1/1/21	Thu 2/25/21	
192	Permitting	3 mons	Fri 2/26/21	Thu 5/20/21	191
193	Construction	2 mons	Fri 5/21/21	Thu 7/15/21	192



Project: SAT MP Schedule
Date: Wed 10/6/10

Task | Milestone | Rolled Up Task | Rolled Up Progress | External Tasks | Group By Summary
Progress | Summary | Rolled Up Milestone | Split | Project Summary | Deadline

ID	Task Name	Duration	Start	Finish	Predecessors
194	S8 - Expand commercial carriers fuel farm - Phase 2	22 mons	Fri 6/9/23	Thu 2/13/25	
195	Design	9 mons	Fri 6/9/23	Thu 2/15/24	146FS+72 mons
196	Permitting	4 mons	Fri 2/16/24	Thu 6/6/24	195
197	Construction	9 mons	Fri 6/7/24	Thu 2/13/25	196
198	**Enhancements Post 2030**	**108 mons**	**Wed 1/1/31**	**Tue 4/12/39**	
199	**Airfield Development**	**48 mons**	**Wed 1/1/31**	**Tue 9/5/34**	
200	A23 - Extend Runway 3-21 to 10,000 feet	48 mons	Wed 1/1/31	Tue 9/5/34	
201	Design	12 mons	Wed 1/1/31	Tue 12/2/31	1
202	Permitting	12 mons	Wed 12/3/31	Tue 11/2/32	201
203	Construction	24 mons	Wed 11/3/32	Tue 9/5/34	202
204	**Commercial Passenger Terminal Development**	**108 mons**	**Wed 1/1/31**	**Tue 4/12/39**	
205	T6 - Expand Terminal C (three gates)	36 mons	Wed 1/1/31	Tue 10/4/33	
206	Design	12 mons	Wed 1/1/31	Tue 12/2/31	
207	Permitting	6 mons	Wed 12/3/31	Tue 5/18/32	206
208	Construction	18 mons	Wed 5/19/32	Tue 10/4/33	207
209	T7 - Construct Terminal D	72 mons	Wed 10/5/33	Tue 4/12/39	
210	Design	24 mons	Wed 10/5/33	Tue 8/7/35	208
211	Permitting	12 mons	Wed 8/8/35	Tue 7/8/36	210
212	Construction	36 mons	Wed 7/9/36	Tue 4/12/39	211
213	**Landside Development**	**69 mons**	**Wed 1/1/31**	**Tue 4/15/36**	
214	L4 - Construct Personal Rapid Transit (PRT) rail line	42 mons	Wed 1/1/31	Tue 3/21/34	
215	Design	12 mons	Wed 1/1/31	Tue 12/2/31	188,38
216	Permitting	6 mons	Wed 12/3/31	Tue 5/18/32	215
217	Construction	24 mons	Wed 5/19/32	Tue 3/21/34	216
218	L5 - Parking expansion	12 mons	Wed 5/16/35	Tue 4/15/36	
219	Design	6 mons	Wed 5/16/35	Tue 10/30/35	240
220	Permitting	2 mons	Wed 10/31/35	Tue 12/25/35	219
221	Construction	4 mons	Wed 12/26/35	Tue 4/15/36	220
222	**Commercial Aviation Development**	**30 mons**	**Wed 1/1/31**	**Tue 4/19/33**	
223	CA3 - Relocate GA tenants out of the terminal area	30 mons	Wed 1/1/31	Tue 4/19/33	
224	Design	12 mons	Wed 1/1/31	Tue 12/2/31	1
225	Permitting	6 mons	Wed 12/3/31	Tue 5/18/32	224
226	Construction	12 mons	Wed 5/19/32	Tue 4/19/33	225
227	**Airline and Airport Support**	**57 mons**	**Wed 1/1/31**	**Tue 5/15/35**	
228	S9 - Commercial aviation development	18 mons	Wed 1/1/31	Tue 5/18/32	
229	Design	6 mons	Wed 1/1/31	Tue 6/17/31	1
230	Permitting	3 mons	Wed 6/18/31	Tue 9/9/31	229
231	Construction	9 mons	Wed 9/10/31	Tue 5/18/32	230
232	S10 - Relocate airport maintenance facilities - Phase 2	18 mons	Wed 1/1/31	Tue 5/18/32	
233	Design	6 mons	Wed 1/1/31	Tue 6/17/31	
234	Permitting	3 mons	Wed 6/18/31	Tue 9/9/31	233
235	Construction	9 mons	Wed 9/10/31	Tue 5/18/32	234
236	S11 - Relocate ATCT	57 mons	Wed 1/1/31	Tue 5/15/35	
237	Design	12 mons	Wed 1/1/31	Tue 12/2/31	
238	Permitting	6 mons	Wed 12/3/31	Tue 5/18/32	237
239	Construction	36 mons	Wed 5/19/32	Tue 2/20/35	238
240	Existing ATCT demolition	3 mons	Wed 2/21/35	Tue 5/15/35	239



Project: SAT MP Schedule
Date: Wed 10/6/10

Task | Milestone | Rolled Up Task | Rolled Up Progress | External Tasks | Group By Summary
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APPENDIX M

DETAILED COST ESTIMATE

San Antonio International Airport

Implementation Plan Cost Estimate

Short-term Implementation Plan (1-5 Years)									
Projects	**Quantity**	**Unit**	**Price Per Unit**	**Amount**	**Design (6%)**	**Management (6%)**	**Total**	**Airport Funded**	**Other**
Land Acquisition									
LA1a - Acquire parcels for rental car maintenance and storage facility and economy parking l	18	AC	$ 849,464	$ 15,000,000			$15,000,000		$15,000,000
Land Acquisition Subtotal							**$15,000,000**		**$15,000,000**
Commercial Passenger Terminal Development							.		
*T1 - Terminal A re-lifing project				$ 29,112,000	$ -	$ -	$29,112,000	$29,120,000	
Commercial Passenger Terminal Development Subtotal							**$29,112,000**	**$29,120,000**	
Landside Development									
*L1 - Construct CONRAC/parking facility	5,000	SP	$ 22,790	$ 113,950,000	$ 6,837,000	$ 6,837,000	$127,624,000		$127,630,000
Landside Development Subtotal							**$127,624,000**		**$127,630,000**
Commercial Aviation Development									
CA1 - Prepare north side commercial aviation site for development	15	AC	$ 72,500	$ 207,500	$ 12,450	$ 12,450	$232,400		$240,000
- Taxiway connector	4,000	SY	$ 220	$ 880,000	$ 52,800	$ 52,800	$985,600		$990,000
Commercial Aviation Development Subtotal							**$1,218,000**		**$1,230,000**
Airline and Airport Support									
S1 - Relocate airport maintenance facilities - Phase 1	52,000	SF	$ 23	$ 1,200,000	$ -	$ -	$ 1,200,000	$1,200,000	
S2 - Rehabilitate West Cargo Building							$2,857,358		$2,860,000
*S3 - Construct airport administrative office building	77,000	SF	$ 182	$ 14,000,000	$ -	$ -	$14,000,000	$14,000,000	
Airline and Airport Support Subtotal							**$18,057,358**	**$15,200,000**	**$2,860,000**
Short-term Implementation Plan Subtotal							**$191,011,358**	**$44,320,000**	**$146,720,000**

*Project cost is in existing Capital Improvement Program

Intermediate-term Implementation Plan (6-10 Years)									
Projects	**Quantity**	**Unit**	**Price**	**Amount**	**Design (6%)**	**Management (6%)**	**Total**	**Airport Funded**	**Other**
Land Acquisition									
LA1b - Acquire parcels between 281, 410 and rail right of way	37	AC	$ 849,268	$ 11,554,477			$11,554,477	$11,560,000	
LA2 - Acquire parcels for existing RPZ encroachments	42	AC	$ 826,046	$ 34,446,136			$34,446,136	$34,450,000	
LA3 - Acquire parcels for upgraded Runway 12L-30R RPZ encroachments	12	AC	$ 850,175	$ 10,278,620			$10,278,620	$10,280,000	
LA4 - Acquire parcels for shifted Runway 12R-30L RPZ encroachments	4	AC	$ 594,150	$ 2,394,424			$2,394,424	$2,400,000	
Land Acquisition Subtotal							**$58,673,657**	**$58,690,000**	
Airfield Development									
A1 - Shift Taxiway H & pave the grass area between Concourse A and Taxiway G	19,243	SY	$ 269	$ 5,176,367	$ 310,582	$ 310,582	$5,797,531	$5,800,000	
A2 - Shift Taxiway N & pave grass area	37,016	SY	$ 270	$ 9,994,320	$ 599,659	$ 599,659	$11,193,638	$11,200,000	
A3 - Construct fillets on Taxiways B and L	623	SY	$ 803	$ 500,269	$ 30,016	$ 30,016	$560,301	$570,000	
A4 - Upgrade Runway 12L-30R (EIS and justification planning only)				$ 2,000,000			$2,000,000	$2,000,000	
A5 - Upgrade Taxiway E to ADG V standards	17,391	SY	$ 191	$ 3,321,681	$ 199,301	$ 199,301	$3,720,283	$3,730,000	
A6 - Demolish Taxiway B between Taxiway G and H	4,290	CY	$ 117	$ 501,930	$ 30,116	$ 30,116	$562,162	$570,000	
A7 - Construct high-speed exits for Runway 30L	5,603	SY	$ 229	$ 1,283,087	$ 76,985	$ 76,985	$1,437,057	$1,440,000	
Runway 12L-30R upgrade and improvements (Includes A8-A13)				$ 86,122,672	$ 5,077,360	$ 5,077,360			
A8 - Upgrade Runway 12L-30R	175,967	SY	$ 295	$ 51,910,265	$ 3,114,616	$ 3,114,616	$58,139,497	$58,140,000	
A9 - Construct/Upgrade full length parallel taxiway system	135,681	SY	$ 229	$ 31,070,949	$ 1,864,257	$ 1,864,257	$34,799,463	$34,800,000	
A10 - Demolish Taxiway M between Rwy 12L-30R and 12R-30L	2,988	CY	$ 143	$ 425,790	$ 25,547	$ 25,547	$476,885	$480,000	
A11 - Demolish Taxiway P between Rwy 12L-30R and 12R-30L	8,531	CY	$ 143	$ 1,215,668	$ 72,940	$ 72,940	$1,361,548	$1,370,000	
A12 - Install CAT I ILS system	-		$ -	$ 1,500,000			$1,500,000	$1,500,000	
Runway 12L-30R Upgrade Subtotal							**$96,277,393**	**$96,290,000**	
A13 - Install CAT I ILS system on Runway 3-21	-		$ -	$ 1,500,000			$1,500,000	$1,500,000	
A14 - Relocate compass calibration pad	6,613	SY	$ 229	$ 1,514,377	$ 90,863	$ 90,863	$1,696,102	$1,700,000	
A15 - Construct high-speed exits for Runway 3-21	13,229	SY	$ 229	$ 3,029,441	$ 181,766	$ 181,766	$3,392,974	$3,400,000	
Airfield Development Subtotal							**$128,137,441**	**$128,200,000**	
Commercial Passenger Terminal Development									
T2 - Terminal A widening	36,000	SF	$ 490	$ 17,640,000	$ 1,058,400	$ 1,058,400	$19,756,800	$19,760,000	
T3 - Expand south RON apron	34,964	SY	$ 269	$ 9,416,754	$ 565,005	$ 565,005	$10,546,764	$10,550,000	
T4 - Concourse A gate expansion (two gates)	18,000	SF	$ 586	$ 10,548,000	$ 632,880	$ 632,880	$11,813,760	$11,820,000	
Commercial Passenger Terminal Development Subtotal							**$42,117,324**	**$42,130,000**	
Landside Development									
L2 - Relocate employee lot south of Loop 410	300	SP	$ 3,200	$ 960,000	$ 57,600	$ 57,600	$1,075,200	$1,080,000	
L3 - Relocate economy lot south of Loop 410	1,500	SP	$ 3,200	$ 4,800,000	$ 288,000	$ 288,000	$5,376,000	$5,380,000	
Landside Development Subtotal							**$6,451,200**	**$6,460,000**	
Commercial Aviation Development									
CA2 - Commercial aviation development	7	AC	$ 55,000	$ 385,000	$ 23,100	$ 23,100	$431,200		$440,000
- Taxiway connector	7,450	SY	$ 220	$ 1,639,000	$ 98,340	$ 98,340	$1,835,680		$1,840,000
GA1 - Redevelop portion of west complex into GA CBP (demo only)	3,000,000	CF	$0.15	$ 450,000	$ 27,000	$ 27,000	$504,000		$510,000
Commercial Aviation Development Subtotal							**$2,770,880**		**$2,790,000**
Air Cargo Development									
C1 - Develop north cargo complex	-		$ -	$ 69,673,620	$ 4,180,417	$ 4,180,417	$78,034,454		$78,040,000
- Taxiway connector	3,079	SY	$ 220	$ 677,380	$ 40,643	$ 40,643	$758,666		$760,000
Air Cargo Development Subtotal							**$78,793,120**		**$78,800,000**
Airline and Airport Support									
S4 - Expand tenant GSE maintenance and storage facilities	6,600	SF	$ 250	$ 1,650,000	$ 99,000	$ 99,000	$1,848,000		$1,850,000
S5 - Expand commercial carriers fuel farm - Phase 1	-		$ -	$ 2,000,000	$ 120,000	$ 120,000	$2,240,000		$2,240,000
S6 - Construct a centralized concession distribution center	-		$ -	$ 8,922,500	$ 535,350	$ 535,350	$9,993,200	$10,000,000	
Airline and Airport Support Subtotal							**$14,081,200**	**$10,000,000**	**$4,090,000**
Intermediate-term Implementation Plan Subtotal							**$331,024,823**	**$245,480,000**	**$85,680,000**

Long-Term Implementation Plan (11-20 Years)									
Projects	**Quantity**	**Unit**	**Price**	**Amount**	**Design (6%)**	**Management (6%)**	**Total**	**Airport Funded**	**Other**
Land Acquisition									
LA5 - Acquire west side parcels between Airport property line and 281	90	AC	$ 856,755	$ 76,893,746	$ -	$ -	$76,893,746	$76,900,000	
Land Acquisition Subtotal							**$76,893,746**	**$76,900,000**	
Airfield Development									
Shift Runway 12R-30L (Includes A16-19)				$ 8,269,883	$ 496,193	$ 496,193			
A16 - Shift Runway 12R-30L (decouple Rwy 3-21)	9,781	SY	$ 262	$ 2,562,622	$ 153,757	$ 153,757	$2,870,137	$2,880,000	
A17 - Relocate the localizer on the 12R end to the outside of the new RSA	-		$ -	$ 1,196,300	$ 71,778	$ 71,778	$1,339,856	$1,340,000	
A18 - Extend Taxiways G and H to the new extension of Runway 12R-30L	16,810	SY	$ 229	$ 3,849,490	$ 230,969	$ 230,969	$4,311,429	$4,320,000	
A19 - Construct a taxiway connector adjacent to Taxiway N	2,459	SY	$ 269	$ 661,471	$ 39,688	$ 39,688	$740,848	$750,000	
Shift Runway 12R-30L Subtotal							**$9,262,269**	**$9,290,000**	
A20 - Install RNAV approach for Runway 12L-30R	-		$ -	$ 1,500,000	$ -	$ -	$1,500,000	$1,500,000	
A21 - Rehab Runway 12R-30L and construct 35' shoulders	191,271	SY	$ 250	$ 47,877,214	$ 2,872,633	$ 2,872,633	$53,622,480	$53,630,000	
A22 - Install NextGen Navigational Aids for runways	-		$ -	$ 5,000,000			$5,000,000	$5,000,000	
Airfield Development Subtotal							**$69,384,749**	**$69,420,000**	
Commercial Passenger Terminal Development									
T5 - Construct Terminal C (six gates)	549,000	SF	$ 544	$ 298,656,000	$ 17,919,360	$ 17,919,360	$334,494,720	$334,500,000	
Commercial Passenger Terminal Development Subtotal							**$334,494,720**	**$334,500,000**	
Airline and Airport Support									
S7 - Expand tenant GSE maintenance and storage facilities	4,400	SF	$ 250	$ 1,100,000	$ 66,000	$ 66,000	$1,232,000		$1,240,000
S8 - Expand commercial carriers fuel farm - Phase 2	-		$ -	$ 2,000,000	$ 120,000	$ 120,000	$2,240,000		$2,240,000
Airline and Airport Support Subtotal							**$3,472,000**		**$3,480,000**
Long-term Implementation Plan Subtotal							**$484,245,215**	**$480,820,000**	**$3,480,000**
Total thru Long-Term Implementation Plan							**$1,006,281,395**	**$770,620,000**	**$235,880,000**

Post 2030 Implementation Plan									
Projects	**Quantity**	**Unit**	**Price**	**Amount**	**Design (6%)**	**Management (6%)**	**Total**	**Airport Funded**	**Other**
Airfield Development									
A23 - Extend Runway 3-21 to 10,000 Feet	69,142	SY	$ 212	$ 14,658,104	$ 879,486	$ 879,486	$16,417,076	$16,420,000	
Airfield Development Subtotal							**$16,417,076**	**$16,420,000**	
Commercial Passenger Terminal Development									
T6 - Expand Terminal C (three gates)	51,000	SF	$ 544	$ 27,744,000	$ 1,664,640	$ 1,664,640	$31,073,280	$31,080,000	
T7 - Construct Terminal D	400,000	SF	$ 468	$ 187,200,000	$ 11,232,000	$ 11,232,000	$209,664,000	$209,670,000	
Commercial Passenger Terminal Development Subtotal							**$240,737,280**	**$240,750,000**	
Landside Development									
L4 - Construct Personal Rapid Transit (PRT) Rail Line	30,200	LF	$ 3,828	$ 115,605,600	$ 6,936,336	$ 6,936,336	$129,478,272	$129,480,000	
L5 - Long-term parking expansion	330	SP	$ 3,200	$ 1,056,000	$ 63,360	$ 63,360	$1,182,720	$1,190,000	
Landside Development Subtotal							**$130,660,992**	**$130,670,000**	
Commercial Aviation Development									
CA3 - Relocate existing GA tenants out of the terminal area	15	AC	$ 125,333	$ 1,880,000	$ 112,800	$ 112,800	$2,105,600		$2,110,000
Commercial Aviation Development Subtotal							**$2,105,600**		**$2,110,000**
Airline and Airport Support									
S9 (a,b,c,d) - Commercial aviation development	22	AC	$ 65,000	$ 1,430,000	$ 85,800	$ 85,800	$1,601,600		$1,610,000
S10 - Relocate airport maintenance facilities - Phase 2	52,000	SF	$ 383	$ 19,916,000	$ 1,194,960	$ 1,194,960	$22,305,920	$22,310,000	
S11 - Relocate ATCT				$ 35,000,000	$ 2,100,000	$ 2,100,000	$39,200,000	$39,200,000	
Airline and Airport Support Subtotal							**$63,107,520**	**$61,510,000**	**$1,610,000**
Sub Total							**$453,028,468**	**$449,350,000**	**$3,720,000**
Total Program Cost							**$1,459,309,864**	**$1,219,970,000**	**$239,600,000**

APPENDIX N

COMMERCIAL DEVELOPMENT ANALYSIS

1. INTRODUCTION

San Antonio International Airport, with a total of 2,300 acres, has limited acreage compared to other domestic airports with similar levels of aviation activity. Also, development of Airport land north of the airfield is restricted due to environmental constraints such as floodplains that preclude the construction of new facilities. Therefore, additional property will be required to accommodate future aviation and commercial facilities for the next 20 years and beyond. Development of such facilities will help increase non-aeronautical revenues and ensure that the Airport remains self-sustaining, which are stated goals of the Master Plan.

The objectives of this Commercial Development Analysis were to:

- Confirm the areas that the Airport should consider acquiring to meet its future operational requirements, in accordance with the Vision 2050 Master Plan recommendations
- Evaluate the feasibility of the proposed acquisitions and establish the best strategy and phasing for the implementation of the land acquisition program
- Identify potential funding sources
- Identify potential challenges that could be encountered while implementing the plan

2. AREAS IDENTIFIED FOR COMMERCIAL DEVELOPMENT

As delineated in the Implementation chapter of the Master Plan, The Team has identified two off-airport areas that would be suitable for airport-related commercial development, as well as one on-airport area in close proximity to the terminal, collectively the "Study Area". **Figure N-1** illustrates these locations.

- Study Areas 1 & 2 encompass 87 acres located south of Loop 410 and delimited by the rail right-of-way to the west, US 281 to the east, and residential neighborhoods to the south. This area currently accommodates off-airport parking, rental car facilities, and non-airport related facilities such as lumber yards, car dealership and hotels.
- Study Area 5 is a 130-acre area to the west of the Airport, along US 281. The area is currently used for retail, office and industrial activities. Most activities in the area are not airport-related, except for Gate Gourmet and rental car storage facilities along Sandau Road (Budget) and Jones Maltsberger Road (Enterprise).
- Study Area A is located on-airport and has been identified as a prime location for commercial development in close proximity to the terminal area. The area is currently used for employee and economy surface parking.

For the purpose of this study, the 2010 Bexar County Appraisal District Tax Rolls were used to obtain information on the ownership of the parcels, and the appraisal values of the parcels. Appraised values include the cost of land and improvements, but do not reflect the cost of acquiring an ongoing business. The Team was not able to determine whether the parcels are owner-operated or owner-leased. In the case where a parcel is owner-leased, any acquisition would be subject to any ongoing lease terms. This analysis is not a commitment to purchase the parcels discussed herein, but an analysis of a potential future acquisition by the Airport.

FIGURE N-1
COMMERCIAL DEVELOPMENT OPPORTUNITIES AND CONSTRAINTS

LEGEND

- Airport property line
- Existing Runway Protection Zone
- Future Runway Protection Zone
- Rail right-of-way

ENVIRONMENTAL CONSIDERATIONS

- Creek
- 100-year floodplain
- 500-year floodplain
- Active solid waste facility
- Closed solid waste facility

COMMERCIAL DEVELOPMENT OPPORTUNITIES

- Off-airport parcels
  - 1&2 Study Areas 1 & 2
  - 5 Study Area 5
- On-airport parcels
  - A Study Area A
  - B 70-acre parcel. Located on a closed municipal waste facility which will require clean-up and disposal activities in compliance with applicable state/local health and safety regulations. Constrained by future Runway 3-21 RPZ
  - C 34-acre parcel. Located on a closed municipal waste facility which will require clean-up and disposal activities in compliance with applicable state/local health and safety regulations. Constrained by future Runway 3-21 RPZ and floodplain to the south
  - D 9.8-acre parcel with no airfield access off US 281

Note:
The commercial development analysis will focus on Areas 1, 2, 5 and A. Other areas could be developed for commercial uses but will not be analysed as part of this study.

NORTH

0 800' 1,600' 3,200'

3. LAND USE CATEGORIES

As set forth herein, the initial assessment for the development opportunity of the Study Area parcels include the accommodation of both future direct aviation and concurrent commercial uses. Therefore, the FAA may require the Airport provide a comprehensive Land Use Plan that identifies the proposed development uses for the Study Area, specifically including any non-aviation commercial uses. This Land Use Plan is a companion document to the Airport's Master Plan and will reflect certain classifications of proposed uses for the Airport property located in the Study Areas. A general description of the proposed land use classifications to be identified in the Land Use Plan are as follows:

- **Direct Aviation.** Aviation use, including base infrastructure and other facilities or amenities for passenger air service, general aviation, aircraft maintenance, aircraft manufacturing, commercial air cargo and other direct aviation facilities requiring access to the airfield.
- **Direct Aviation Support.** Aviation or concurrent commercial use, including facilities for companies providing logistics, materials, cargo, and certain warehousing/distribution operations; and providing such aviation support services for direct aviation users, including the passengers, employees, agents and contractors, guests, and the tenants of the Airport.
- **Indirect Aviation.** Concurrent commercial use, including offices, industrial facilities, retail, and similar facilities which do not have airfield access, located on land not currently needed for direct aviation development. The primary purposes for these areas is to ensure an adequate noise buffer and to retain the property for future direct aviation uses if required, and to provide goods and services for the direct aviation users, including the passengers, employees, agents, contractors, guests, and the tenants of the Airport.
- **Non-aviation.** Concurrent commercial use, including offices, industrial facilities, retail, and similar facilities which do not have airfield access, located on land not currently needed for direct aviation development. The primary purposes for these areas are to ensure an adequate noise buffer and to ensure land development and uses compatible to direct aviation uses if required to generate non-airline related revenues to enhance the overall revenues of the Airport, and thereby promoting the growth of air service, and ensuring the Airport remains self sustaining.

The Airport Improvement Program Handbook (FAA Order 5100.38C), stipulates the acquisition of any interest in land is eligible for AIP funding when it is necessary for "airport purposes" as determined in the latest airport master plan. The term "airport purposes," as used therein, refers to all aviation activities normally found on an airport. Although many infrastructure and construction elements are not eligible for AIP funding, the land they occupy would be eligible for acquisition. This AIP eligibility extends to the acquisition of land for future airport development, if such acquisition is based on reasonable projections of aeronautical need in the orderly development of an airport, as determined by the FAA.

Land purchased pursuant to an FAA grant is presumed to be in pursuit of an aeronautical purpose. However, aeronautical property may be used for a compatible non-aviation purpose while at the same time serving the primary purpose for which it was acquired. This alternative use is considered a concurrent use of aeronautical property. FAA Order 5190.6B – Airport Compliance Manual, Chapter 22; Section 22.5 – stipulates that a request must be specifically approved by FAA to use land acquired with AIP grant funding for non-aviation concurrent use.

The Master Plan designates the parcels in the Study Area for "Future Airport Land Development." All acreage in the Study Area is needed for airport purposes and the highest and best use for a significant portion of the acreage is for direct aviation and aviation support. However, since concurrent non-aviation commercial uses for certain acreage are anticipated to be a component of the Land Use Plan, specific FAA approval of the proposed non-aviation uses will be required.

4. STUDY AREAS 1 & 2

4.1. Logic for Acquisition

Study Areas 1 & 2 are currently composed of 72 parcels, owned by 22 different entities according to the Bexar County Appraisal District Tax Rolls. The current parcels are shown on **Figure N-2** and ownership and appraisal values are listed in **Table N-1**.

As delineated in the recommended landside alternative illustrated in Chapter 5 of the Master Plan - Alternatives Development and Evaluation - it is recommended that employee and economy parking lots be relocated to Study Areas 1 & 2. It is also recommended that rental car storage and maintenance facilities be consolidated in a location south of Loop 410. Study Area A, which is currently used for employee and economy lot, would therefore be vacated and could be redeveloped for indirect aviation and aviation support purposes.

Landside development in Study Areas 1 & 2 would be configured to facilitate connections to the regional transportation systems, more specifically to the Austin-San Antonio regional passenger rail, in order to facilitate access to the Airport for transit users. The regional rail is expected to be operational within the next five years. It will use the existing rail alignment along Wetmore Road and a station will be located in proximity to the Airport. While a detailed location for this station still needs to be finalized by the Lone Star Rail District, it may potentially be south of Loop 410 and collocated with the Airport's landside development, which would create significant synergistic opportunities for SAT and the Lone Star Rail District. San Antonio's transit agency, VIA Metropolitan Transit, also would serve this complex, creating a true multimodal station. A bus link will initially operate between the station and the terminal, to be ultimately replaced by a PRT system when passenger activity levels warrant it. The station will be the new front door to the Airport and acquisition of parcels south of 410 will be necessary to create this new front door and to establish the Airport's role in the transit-oriented development around the station.

FIGURE N-2
STUDY AREAS 1 & 2
PARCEL AND EXISTING LAND USE MAP

LEGEND

- Airport property line
- Study Areas 1 & 2

LAND USES

- Industrial
- Commercial store site
- Commercial office building
- Easement
- R/1 single family (not farm)
- Parking
- 496291 Bexar Appraisal District Property ID

NORTH

0 200' 400' 800'

Table N-1: Potential Parcels for Land Acquisition - Study Areas 1 & 2

Property ID	Geographic ID	Type	Property Address	Legal Description	Owner Name	Appraised Value	Type	Land				Improvement / Building
								Description	Acres	Sq. ft	Market Value	
420638	08674-002-0200	Real	1008 HALM BLVD TX	NCB 8674 BLK 2 LOT 20 SAVE & EXCEPT SE TRI & E 12.5 FT OF 19 & NW IRR 32 FT OF 21, NW TRI OF 35 & NW TRI OF 51	AIRPORT TRIANGLE LLC	$262,650	CSS	Commercial Store Site	0.50	21,771	$261,260	$1,390
420639	08674-002-0270	Real	8715 AIRPORT BLVD	NCB 8674 BLK 2 LOT N 122.8 FT OF 29 & 30 & N W TRI 6.49 OF N 122.8 OF 28	AIRPORT TRIANGLE LLC	$81,700	COB	Commercial Office Building	0.25	10,806	$64,840	$16,860
420643	08674-002-0290	Real	8715 AIRPORT BLVD 3	NCB 8674 BLK 2 LOTNW TRI .98 OF S100 OF 28,WIRR 40.49 OF S100 OF 29&S100 OF 30	AIRPORT TRIANGLE LLC	$54,307	CSS	Commercial Store Site	0.19	8,232	$49,390	$4,917
420644	08674-002-0310	Real	1022 PARKRIDGE 3	NCB 8674 BLK 2 LOT 31 AND 32 AND E 3 FT OF 33	AIRPORT TRIANGLE LLC	$102,900	CSS	Commercial Store Site	0.34	14,705	$88,230	$0
420645	08674-002-0330	Real	1022 PARKRIDGE 3 TX	NCB 8674 BLK 2 LOT W 41 FT OF 33 & E IRR OF 34	AIRPORT TRIANGLE LLC	$85,400	COB	Commercial Office Building	0.27	11,583	$69,500	$15,900
420648	08674-002-0350	Real	N US HWY 281	NCB 8674 BLK 2 LOT 37, S IRR 110 OF 17&18,SW TRI OF 19 S 100 OF 36& E 22 FT OF 38	STATE OF TEXAS	$0	CSS	Commercial Store Site	0.04	1,900	$22,800	$0
420654	08674-002-0500	Real	1002 HALM BLVD	NCB 8674 BLK 2 LOT 50	AIRPORT TRIANGLE LLC	$193,420	CSS	Commercial Store Site	0.37	16,110	$193,320	$100
420655	08674-002-0510	Real	1014 HALM BLVD	NCB 8674 BLK 2 LOT SE IRR OF 51	AIRPORT TRIANGLE LLC	$79,660	CSS	Commercial Store Site	0.15	6,639	$79,660	$0
420656	08674-002-0520	Real	1022 HALM BLVD	NCB 8674 BLK 2 LOT 52	AIRPORT TRIANGLE LLC	$154,590	CSS	Commercial Store Site	0.30	12,874	$154,490	$100
420657	08674-002-0530	Real	1022 HALM BLVD TX	NCB 8674 BLK 2 LOT SE IRR OF 53	AIRPORT TRIANGLE LLC	$382,240	COB	Commercial Office Building	0.38	16,623	$199,470	$182,770
420663	08674-005-0290	Real	360 E LOOP 410	NCB 8674 BLK 5 LOT 29, 30, 31 & E 8 FT OF 28	STATE OF TEXAS	$298,780	CSS	Commercial Store Site	0.57	24,898	$298,780	$0
420665	08674-005-0320	Real	338 E LOOP 410 TX	NCB 8674 BLK 5 LOT S IRR 234.71 FT OF 32	AIRPORT TRIANGLE LLC	$330,340	CSS	Commercial Store Site	0.60	25,940	$311,280	$19,060
420666	08674-005-0330	Real	338 E LOOP 410 1	NCB 8674 BLK 5 LOT S IRR 145.47 FT OF 33	AIRPORT TRIANGLE LLC	$216,500	CSS	Commercial Store Site	0.40	17,463	$209,560	$6,940
420669	08674-005-0342	Real	330 E LOOP 410 TX	NCB 8674 BLK 5 LOT 34	AIRPORT TRIANGLE LLC	$319,330	CSS	Commercial Store Site	0.61	26,611	$319,330	$0
420692	08675-003-0540	Real	1122 HALM BLVD TX	NCB 8675 BLK 3 LOT 54 (CROWNHILL ARCES SUBD)	DUNWORTH REAL ESTATE CO INC	$2,665,710	CSS	Commercial Store Site	7.72	336,327	$2,663,710	$2,000
420693	08675-004-0060	Real	402 E LOOP 410	NCB 8675 BLK 4 LOT 29 & S IRRG 104.09 FT OF 6 & S IRRG 65 FT OF 7	STATE OF TEXAS DEPT OF TRANSPORTATION	$0	CSS	Commercial Store Site	0.82	35,562	$533,430	$0
420704	08679-000-0012	Real	602 E LOOP 410 TX	NCB 8679 LOT 1-3,EXC N PT OF 1&2, S17.3 OF 4, SW TRI 5 FT OF 5, S 195.5 OF 21, S 160.6 OF 22, & SW 17.5 OF 23	CAPPS DAVE FAMILY LIMITED PARTNERSHIP	$514,	CSS	Commercial Store Site	1.31	57,107	$685,290	$1,000
420711	08679-000-0046	Real	602 E LOOP 410	NCB 8679 LOT 4-6,EXC S PT OF 4 & 5, N PT OF 1 & 2, N 58.8 FT OF 21,N 60.7 FT OF 22, & 23 EXC SW 17.5 FT	STATE OF TEXAS	$0	EST	Easement	1.11	48,352	$480	$0
420717	08679-000-0181	Real	542 E LOOP 410 TX 78216	NCB 8679 BLK LOT S IRR 314.44 FT OF 18	RANCHHODRAI INC	$1,578,370	CSS	Commercial Store Site	0.84	37,193	$392,760	$1,185,610
420719	08679-000-0192	Real	550 E LOOP 410 TX	NCB 8679 BLK LOT S IRR 260.30 FT OF 19 & S IRR 212.41 FT OF 20	CAPPS DAVE FAMILY LIMITED PARTNERSHIP	$697,610	CSS	Commercial Store Site	1.11	48,428	$581,140	$186,210
420720	08679-000-0193	Real	550 E LOOP 410	NCB 8679 BLK LOT N 53.93' OF S 314.23' OF 19 & N 57.36' OF S 269.77' OF 20	STATE OF TEXAS	$0	EST	Easement	0.22	9,409	$90	$0
420729	08679-000-0400	Real	530 NE LOOP 410 TX	NCB 8679 BLK LOT 40 SKY-WAY SUBD	BDRW LIMITED PARTNERSHIP	$1,350,000	CSS	Commercial Store Site	1.98	86,462	$933,790	$416,130
495812	11954-003-0041	Real	1222 HALLMARK	NCB 11954 BLK 3A LOT 4, 5 & 5A	DUNWORTH REAL ESTATE CO	$364,300	IND	Industrial	2.00	87,120	$250,030	$114,270

Property ID	Geographic ID	Type	Property Address	Legal Description	Owner Name	Appraised Value	Type	Land				Improvement / Building
								Description	Acres	Sq. ft	Market Value	
495817	11954-003-0123	Real	8423 EASTERN	NCB 11954 BLK 3A LOT 12 (.50AC), 12A (.50AC) & 13 (1.0AC)	JAYLEE LTD	$950,000	IND	Industrial	2.00	87,120	$250,030	$699,970
495828	11954-003-0180	Real	8320 N US HWY 281 TX	NCB 11954 BLK 3 LOT 18 (BMW CENTER)	GUENTHER VALERIE URSCHEL	$664,740	CSS	Commercial Store Site	2.54	110,773	$664,640	$100
495832	11955-003-0081	Real	8402 EASTERN	NCB 11955 BLK 3B LOT 9 & S IRR PT 0F 8	VANGUARD REAL ESTATE HOLDINGS LLC	$221,250	IND	Industrial	1.45	63,215	$221,250	$0
495833	11956-004-0100	Real	1442 PARKRIDGE	NCB 11956 BLK 4 LOT 10	BENSON AERO MOTIVE INC	$147,000	IND	Industrial	0.52	22,446	$78,560	$68,440
495834	11956-004-0120	Real	8526 VIDOR DR	NCB 11956 BLK 4 LOT 12	GUIDO & COMPANIES	$734,000	IND	Industrial	4.00	174,200	$456,400	$277,600
495835	11956-004-0140	Real	8446 VIDOR DR	NCB 11956 BLK 4 LOT 13 14 & 20	GUIDO & COMPANIES	$244,000	IND	Industrial	1.00	43,500	$152,250	$91,750
495836	11956-004-0180	Real	8402 VIDOR DR	NCB 11956 BLK 4 LOT 18 & 19	GUIDO & COMPANIES	$310,000	IND	Industrial	0.93	40,440	$141,540	$168,460
495837	11957-005-0010	Real	8518 EASTERN	NCB 11957 BLK 5A LOT 1 ALAMO RENT A CAR AIRPORT SUB	VANGUARD REAL ESTATE HOLDINGS LLC	$2,285,400	CSS	Commercial Store Site	6.96	303,221	$1,364,500	$1,299,900
495841	11957-005-0080	Real	1308 PARKRIDGE	NCB 11957 BLK 5A LOT 8	WALKER AIRPORT PROPERTIES LLC	$167,460	IND	Industrial	1.00	43,560	$152,460	$15,000
495842	11957-005-0090	Real	1314 PARKRIDGE	NCB 11957 BLK 5A LOT W 50.05 FT OF 9	GALLAGHER MARY ELLEN TRUST	$15,800	IND	Industrial	0.10	4,504	$15,760	$0
495843	11957-005-0091	Real	1318 PARKRIDGE TX	NCB 11957 BLK 5A LOT W 50.05 FT OF E 100.1 FT OF 9	WALKER AIRPORT PROPERTIES LLC	$50,800	IND	Industrial	0.33	14,515	$50,800	$0
495844	11957-005-0094	Real	1322 PARKRIDGE	NCB 11957 BLK 5A LOT E 50.5 FT OF 9 & W 75.1 FT OF 10	NICHOLS ELMER L	$90,260	RES	R/1 Family not Farm Single	0.86	37,542	$78,090	$12,170
495845	11957-005-0100	Real	1322 PARKRIDGE TX	NCB 11957 BLK 5A LOT E 75.1 FT OF 10	GUIDO & COMPANIES	$59,700	IND	Industrial	0.50	21,780	$57,280	$1,000
495846	11957-005-0110	Real	1346 PARKRIDGE	NCB 11957 BLK 5A LOT 11 & 12	GUIDO & COMPANIES	$275,000	IND	Industrial	1.70	74,052	$259,180	$15,820
495847	11957-005-0130	Real	1347 HALLMARK	NCB 11957 BLK 5A LOT S IRR 190.7 FT OF 13 .692 AC	PREMIER AUTO BODY & PAINT	$216,250	IND	Industrial	0.69	30,143	$105,500	$110,750
495848	11957-005-0131	Real	8503 VIDOR DR	NCB 11957 BLK 5 LOT N IRR 99.3 FT OF 13	GUIDO & COMPANIES	$139,700	IND	Industrial	0.60	26,049	$91,170	$48,530
495849	11957-005-0140	Real	1343 HALLMARK TX	NCB 11957 BLK 5A LOT 14 & E 60.2 FT OF 15	WALKER AIRPORT PROPERTIES LLC	$695,000	IND	Industrial	1.40	61,018	$213,560	$481,440
495850	11957-005-0151	Real	1323 HALLMARK	NCB 11957 BLK 5A LOT W 90 FT OF 15	WALKER AIRPORT PROPERTIES LLC	$352,540	IND	Industrial	0.60	26,100	$91,350	$261,190
495854	11958-005-0012	Real	1114 PARKRIDGE 1	NCB 11958 BLK 5B LOT E 75 FT OF N 120 FT OF 1	DUNWORTH JAMES F	$31,130	PRK	Parking	0.14	6,000	$36,000	$10,130
495855	11958-005-0020	Real	1122 PARKRIDGE	NCB 11958 BLK 5B LOT E 50 FT OF 2	DUNWORTH JAMES F	$58,700	IND	Industrial	0.34	14,593	$51,080	$7,620
455856	11958-005-0040	Real	1138 PARKRIDGE	NCB 11958 BLK 5B LOT 4	DUNWORTH JAMES F	$155,600	IND	Industrial	1.00	43,558	$152,450	$3,150
495857	11958-005-0180	Real	8519 EASTERN	NCB 11958 BLK 5B LOT 18	DUNWORTH REAL ESTATE CO	$80,790	IND	Industrial	0.50	21,780	$76,230	$4,560
495858	11958-005-0190	Real	1211 HALLMARK 1	NCB 11958 BLK 5B LOT W 75.1 FT OF 19	DUNWORTH JAMES F	$82,000	IND	Industrial	0.50	21,780	$76,230	$5,770
495859	11958-005-0191	Real	1211 HALLMARK	NCB 11958 BLK 5B LOT E 75.1 FT OF 19	DUNWORTH JAMES F	$86,400	IND	Industrial	0.50	21,780	$76,230	$10,170
495860	11958-005-0200	Real	1210 HALLMARK	NCB 11958 BLK 5B LOT 20	DUNWORTH JAMES F	$155,450	IND	Industrial	1.00	43,558	$152,450	$3,000
495861	11958-005-0210	Real	1213 HALLMARK 1	NCB 11958 BLK 5B LOT 21	DUNWORTH JAMES F	$155,450	IND	Industrial	1.00	43,558	$152,450	$3,000
495863	11958-005-0221	Real	249 AIRPORT BLVD	NCB 11958 BLK 5B LOT NE 80 FT OF 22	UNITED STATES GOVERNMENT	$0	CSS	Commercial Store Site	0.09	4,008	$24,050	$0
495864	11958-005-0222	Real	AIRPORT BLVD	NCB 11958 BLK 5B LOT NW 70 FT OF 22	UNITED STATES GOVERNMENT	$0	CSS	Commercial Store Site	0.03	1,394	$8,360	$0

Property ID	Geographic ID	Type	Property Address	Legal Description	Owner Name	Appraised Value	Type	Land				Improvement / Building
								Description	Acres	Sq. ft	Market Value	
495866	11958-005-0224	Real	8518 AIRPORT BLVD	NCB 11958 BLK 5B LOT S IRR 270 FT OF 22 EXCEPT SW TRI 13 FT OF 22	DUNWORTH REAL ESTATE CO	$203,800	IND	Industrial	0.84	36,508	$127,780	$76,020
495867	11958-005-0225	Real	AIRPORT BLVD	NCB 11958 BLK 5B LOT SW TRI 13 FT OF 22	STATE OF TEXAS	$0	CSS	Commercial Store Site	0.02	1,045	$6,270	$0
495868	11958-005-0230	Real	1128 PARKRIDGE 1	NCB 11958 BLK 5B LOT 23	DUNWORTH JAMES F	$39,800	IND	Industrial	0.26	11,250	$39,380	$420
495869	11958-005-0240	Real	1134 PARKRIDGE	NCB 11958 BLK 5B LOT 24	DUNWORTH JAMES F	$120,320	IND	Industrial	0.76	32,947	$115,320	$5,000
495870	11958-005-0250	Real	1210 PARKRIDGE	NCB 11958 BLK 5B LOT 25	DUNWORTH REAL ESTATE CO	$38,360	IND	Industrial	0.21	8,960	$31,360	$7,000
495871	11958-005-0260	Real	1218 PARKRIDGE	NCB 11958 BLK 5B LOT 26	DUNWORTH REAL ESTATE CO	$58,420	IND	Industrial	0.23	10,160	$35,560	$22,860
495872	11958-005-0270	Real	8535 EASTERN	NCB 11958 BLK 5B LOT 27	DUNWORTH REAL ESTATES	$52,230	IND	Industrial	0.19	8,250	$28,880	$23,350
495873	11958-005-0280	Real	8531 EASTERN	NCB 11958 BLK 5B LOT 28	DUNWORTH REAL ESTATE CO	$52,790	IND	Industrial	0.19	8,250	$28,880	$23,910
495874	11958-005-0290	Real	8527 EASTERN	NCB 11958 BLK 5B LOT 29	DUNWORTH REAL ESTATE CO	$37,490	IND	Industrial	0.19	8,250	$28,880	$8,610
495875	11958-005-0300	Real	8503 EASTERN	NCB 11958 BLK 5B LOT 30	DUFFIN RUSSELL J	$177,000	IND	Industrial	0.33	14,269	$49,940	$127,060
495876	11958-005-0310	Real	8511 EASTERN	NCB 11958 BLK 5B LOT 31	DUFFIN RUSSELL J	$26,400	IND	Industrial	0.17	7,510	$26,290	$100
495877	11958-005-0320	Real	1118 PARKRIDGE 2	NCB 11958 BLK 5B LOT 32	DUNWORTH JAMES F	$112,550	IND	Industrial	0.67	29,300	$102,550	$10,000
495879	11958-005-0331	Real	8518 AIRPORT BLVD	NCB 11958 BLK 5B LOT 33 EXCEPT NW TRI 55.08 FT OF 33	DUNWORTH JAMES F	$153,820	IND	Industrial	0.68	29,664	$103,820	$50,000
495880	11958-005-0332	Real	AIRPORT BLVD	NCB 11958 BLK 5B LOT NW TRI 55.08 FT OF 33	STATE OF TEXAS	$0	CSS	Commercial Store Site	0.13	5,532	$33,190	$0
517177	13035-020-0271	Real	1122 CHULIE 1	NCB 13035 BLK 20 LOT SE IRR 174.18 FT OF 27	STOVALL ROBERT A	$268,000	IND	Industrial	0.69	29,969	$78,670	$189,330
517226	13038-000-1001	Real	SPRUCEWOOD	NCB 13038 BLK LOT P-100	KINMAC CONSTRUCTION COMPANY	$100	EST	Easement	0.86	37,540	$380	$0
999139	08679-000-0373	Real	TX	NCB 8679 BLK LOT NW IRR 25.62 OF 37	STATE OF TEXAS	$146,360	CSS	Commercial Store Site	0.28	12,197	$146,360	$0
1044467	11954-003-0034	Real	1202 HALLMARK DR TX	NCB 11954 BLK 3A LOT N 174.94 FT OF 3	DEL REY HALLMARK INC	$595,000	COB	Commercial Office Building	0.60	26,310	$157,860	$437,140
1044494	11954-003-0190	Real	8330 N US HWY 281 TX	NCB 11954 BLK 3 LOT 19 (BMW CENTER UT-1)	IRONWOOD PARTNERS LTD ETAL	$5,245,960	CSS	Commercial Store Site	3.86	168,054	$756,250	$4,489,710
1107423	08679-000-0410	Real	514 NE LOOP 410 TX 78216	NCB 8679 BLK LOT 41 (SKY-WAY SUBD)	SAT PARKDALE INC	$6,846,260	CSS	Commercial Store Site	2.36	102,932	$1,086,970	$5,759,290

4.2. Strategy

The proposed land acquisition strategy is to acquire the area in phases. Parcels were grouped into logical "acquisition zones", as shown on **Figure N-3**, based on their locations and current uses:

- Zone 1A is the "core area" which should be acquired first to allow the Airport to start relocating the employee lots away from the terminal area. The area is currently used by rental car operators for their ready/return, fueling, maintenance and storage facilities (National, Enterprise and Alamo). Advantage Rent-A-Car also has additional support facilities in the area. Other parcels are leased and/or owned by diverse businesses such as River City Coaches and auto repair shops.
- Zone 1B is currently occupied by lumber yards and vacant facilities located between Vidor Avenue and the rail road. This would be the future location of the intermodal station serving the Airport. While not a priority, the Airport could decide to purchase it in order to spearhead a commercial/transit-oriented development program along the rail right-of-way.
- Zone 1C is currently occupied by commercial development along Loop 410. It includes hotels (a 116-room SpringHill Suites and a 50-room Days Inn), retail and van and car rental facilities. Value of the land and improvements is estimated at $10.6 million, for a total of nine acres. It is recommended that the Airport not acquire this area due to its cost. Facility requirements can be met on the remainder land and current uses in 2C are compatible with the Airport.
- Zone 1D corresponds to Airport Security Parking. The off-airport parking operator occupies approximately 18 acres in a central location. It is understood that acquisition of this area will be costly as the Airport will be required to acquire the ongoing business.
- Zone 1E is currently used for parking and Star Shuttle and Charter. The acquisition of this zone would depend on whether the Airport has a need for additional airport support facilities.
- Zone 1F is currently occupied by a BMW dealership which should be left out of the land acquisition program due to the high cost of the parcel - approximately $6 million.

Two development scenarios were prepared to provide the Airport with a contingency plan in case some parcel owners were to be holdouts.

Unconstrained Scenario

The unconstrained scenario assumes that all zones but Zones 1C and 1F would be acquired. It assumes that the Airport has the funding necessary for acquisition and redevelopment of the acquired land, and that demand for commercial development in Study Area A has been demonstrated. This concept, illustrated on **Figure N-4**, is the concept recommended in the Master Plan. The different functions that would be accommodated are delineated in **Table N-2**.

Table N-2: Study Areas 1& 2 Proposed Uses - Unconstrained Scenario

Priority	Function	Rationale	2030 Space requirements
1	Rental Car Support	Rental car facilities will be relocated to a CONRAC near the terminal but a remote location will be required for storage and maintenance operations.	
2	Economy Parking	Economy parking will be relocated south of Loop 410	1,700 spaces
3	Employee parking	Employee parking will be relocated south of Loop 410	1,600 spaces
4	Airport Support	The Airport is landlocked and will not be able to accommodate additional airport support facilities beyond the planning horizon - hence the long-term need for additional land	N/A

Constrained Scenario

The constrained scenario presents an alternate plan in case a parcel could not be acquired due to lack of funding, especially if the Airport needs to buy out an existing business. It assumes that Airport Security Parking would not be acquired, at least in the short-term, as it has the highest potential for being a holdout.

The interim and ultimate development plans for this scenario are illustrated on **Figures N-5** and **N-6**. Main recommendations include:

- As in the unconstrained scenario, it is recommended that the Airport not acquire Zones 1C and 1F due to the high cost of these areas.
- The employee lot should be relocated to Zone 1A.
- The economy lot should stay in its current location and should be reconfigured to allow for commercial development along Airport Boulevard. The economy lot should stay in the terminal area if Airport Security Parking were to remain in operation. Relocating the economy lot to the south next to an off-airport parking would diminish the Airport's competitive advantage and would ultimately negatively impact the Airport's parking revenues.
- Indirect aviation facilities could be developed along Airport Boulevard, immediately north of the cell phone lot. Up to five acres could be reserved for retail, and could feature a last stop gas station for people returning rental cars to the consolidated rental car facility. Regarding potential commercial development along South Terminal Drive, the configuration of the highway ramps make it more challenging to develop a cohesive retail area along this road. Locating the retail area in proximity to the cell phone lot could also create synergies that would increase patronage for the new commercial facilities.
- In this scenario, the rental car and maintenance facilities could not be relocated south of Loop 410. An alternate location would be the area currently used for employee parking,

south of the existing Nayak facilities. This area is 7.2 acres, roughly the area provided for rental cars in the unconstrained scenario (7.5 acres).

The proposed long-term strategy is for the Airport to wait for an opportunity to buy out Airport Security Parking. The Airport would then be able to relocate the economy lot south of Loop 410 and to expand commercial uses in Study Areas 1 & 2. The rental car maintenance and storage facilities would remain north of Loop 410 to preserve the investment that would have been made in the interim phase.

4.3. Potential Funding Sources

The acquisition of the Study Areas 1 and 2 may be eligible for AIP funding as determined in the Master Plan as needed for "Future Airport Development" even if the ultimate use of such parcels does not qualify as AIP-eligible development. The ultimate uses for such property purchased with federal funding are subject to approval by the FAA pursuant to Order 5190.6B (Compliance Requirements) Section 5. There are numerous restrictions on the development of Airport owned land and the use of the revenue from that land that are driven by the Grant Assurances that airports accept as a condition for receiving Federal funds or acquiring Federal surplus property. These restrictions do not prohibit airport land development; however, they do put limitations to some aspects of this development. Due to their location, the Study Areas 1 & 2 parcels are not direct aviation parcels but are replacement areas for the indirect aviation, landside operational areas and as shown in the Master Plan, and as such are needed for "airport purposes." Therefore, a Land Use Plan may demonstrate the concurrent commercial uses for the property.

In the event the Airport does not pursue federal AIP funding for Study Areas 1 & 2, the specific FAA approval for non-aviation uses is not required. However, the Airport must continue to comply with FAA Grant Assurances for some aspects of the development can be avoided. A Land Use Plan can identify the potential funding sources and acquisition phasing plan for these properties.

As shown in Table 2, the proposed uses for certain parcels in Study Areas 1 & 2 are related to the new Rental Car Center operations, and as such may be eligible for consideration for funding from Customer Facility Charges ("CFC").

Upon completion of the Land Use Plan, the FAA will be provided an opportunity to confirm and approve the final uses for the Study Area properties and determine if such uses reflect the proposed development plan reflected in the Master Plan.

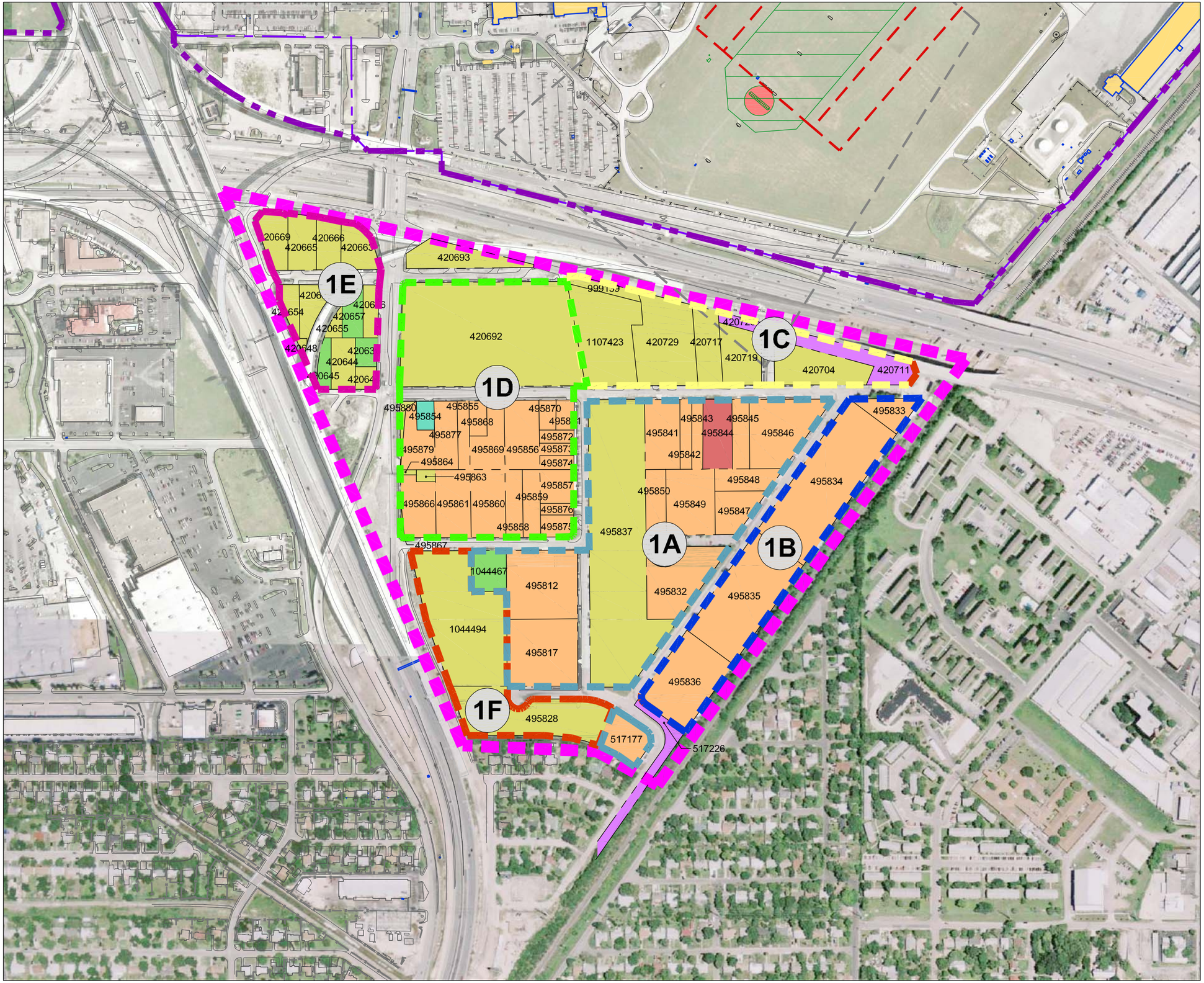

FIGURE N-3
STUDY AREAS 1 & 2
ACQUISITION ZONES

LEGEND

Airport property line

Study areas 1 & 2

LAND USES

Industrial

Commercial store site

Commercial office building

Easement

R/1 single family (not farm)

Parking

496291 Bexar Appraisal District Property ID

ACQUISITION ZONES

Zone 1A
Approximate acreage: 23 ac.
Current uses: rental car service centers, warehouses
Total appraised value: $6,746,000

Zone 1B
Approximate acreage: 9 ac.
Current uses: lumber yards
Total appraised value: $1,435,000

Zone 1C
Approximate acreage: 9 ac.
Current uses: hotels (SpringHill Suites Marriott, Days Inn), car rental facility, retail
Total appraised value: $10,618,600

Zone 1D
Approximate acreage:18 ac.
Current uses: off-airport parking
Total appraised value: $4,544,000

Zone 1E
Approximate acreage: 7 ac.
Current uses: parking, shuttle bus facility
Total appraised value: $2,561,817

Zone 1F
Approximate acreage: 6 ac.
Current uses: car dealership
Total appraised value: $5,910,700

Note:
Appraised values were obtained from Bexar County Appraisal District, accessed in June 2010. Appraised values include the cost of land and improvements, but do not reflect the cost of acquiring an ongoing business.

NORTH

0 200' 400' 800'

FIGURE N-4
STUDY AREAS 1 & 2
UNCONSTRAINED SCENARIO PROPOSED DEVELOPMENT

LEGEND

- Airport property line
- Study areas 1 & 2
- Area excluded from acquisition program

PROPOSED USES

- Rental car maintenance and storage
- Economy parking lot
- Employee parking lot
- Airport support
- Intermodal station and transit-oriented development
- Commercial development

NORTH

0 250' 500' 1,000'

FIGURE N-5
STUDY AREAS 1 & 2
CONSTRAINED SCENARIO PROPOSED DEVELOPMENT - INTERIM PLAN

LEGEND

- Airport property line
- Study areas 1 & 2
- Area excluded from acquisition program

PROPOSED USES

- Rental car maintenance and storage
- Economy parking lot
- Employee parking lot
- Airport support
- Intermodal station and transit-oriented development
- Commercial development

NORTH

0 250' 500' 1,000'

FIGURE N-6
STUDY AREAS 1 & 2
CONSTRAINED SCENARIO PROPOSED DEVELOPMENT - ULTIMATE PLAN

LEGEND

- Airport property line
- Study areas 1 & 2
- Area excluded from acquisition program

PROPOSED USES

- Rental car maintenance and storage
- Economy parking lot
- Employee parking lot
- Airport support
- Intermodal station and transit-oriented development
- Commercial development

NORTH

0 250' 500' 1,000'

5. STUDY AREA 5

5.1. Logic for Acquisition

As stated in the introduction, the Airport will need to acquire additional property to meet long-term development needs. While 2030 facility requirements can be accommodated on airport, more land is required for long-term expansion of the direct aviation uses including general aviation, cargo, maintenance, repair and overhaul (MRO) facilities and other aviation support facilities. One of the findings of the Alternatives Development and Evaluation analysis also was that it is not feasible for the Airport to accommodate a new MRO or manufacturing entrant as there is insufficient property available to develop a large scale facility due to current land constraints.

Due to its location, Study Area 5 could be developed for these direct aviation uses as airfield access could be provided to these parcels.

5.2. Strategy

The FAA has historically supported the acquisition of land to logical environmental or man-made boundaries, US 281 in the case of SAT.

The proposed land acquisition strategy is to acquire the area in phases. Actual phasing will be driven by availability of funds, costs, compatibility of the existing land uses, lease expiration dates, and potential leverage with land owners. The area is currently composed of 76 parcels, owned by 63 different entities according to the Bexar County Appraisal District Tax Rolls. The current parcels are shown on **Figure N-7** and ownership and appraisal values are listed in **Table N-3**. Parcels were grouped into logical "acquisition zones", as shown on **Figure N-8**, based on their locations and current uses:

- Zone 5A is the logical first step to start the implementation of the land acquisition program. The area is in close proximity to the Airport and could be used for direct aviation uses. Also, Parcel #498148 is currently used by Budget. If the Airport were to move forward with the consolidation of all rental car facilities, this parcel would be vacated and as such should be one of the first parcels the Airport should consider acquiring.
- The acquisition of Zones 5B, 5C and 5D, following the development of 5A, would allow for the expansion of direct aviation and direct aviation support facilities.
- Zone 5E is the area located between US 281 and Gulfdale Drive and is currently used for non-aviation retail and offices and should be the last zone to be acquired due to its cost and location.
- Zone 5F is the southern end of Study Area 5. It includes high-end development such as office buildings and associated parking facilities (Union Square Offices, Airport Center LLP) and a 261-room Embassy Suites. Acquiring this area would be very costly: the land and improvements are evaluated at $93 million for a total of 24 acres, vs. $48 million and approximately 90 acres for all the other zones combined. This cost estimate does not include the cost of acquiring the businesses on the parcels. It is therefore recommended that the Airport not acquire properties in this zone. This parcel is not required for the Airport to expand aviation facilities, and the current land uses in 1F are compatible with airport activity.

It is understood that not all parcels could be acquired and/or developed at the same time and a strategy for the interim use of the parcels should be defined. Potential alternatives for interim uses before the area is redeveloped by the Airport are:

- Demolish the facilities: if a parcel is not leased to a third party at the time of acquisition, the Airport can demolish and redevelop at its own discretion.
- Lease back to current occupant: if a parcel is leased to a third-party tenant at the time of acquisition, the Airport has to honor the lease and can decide to lease to the current occupant if the parcel is not immediately needed for airport-related development.
- Property management/airport landlord

Figure N-9 illustrates how the area could be developed to ultimately provide approximately 46 acres of parcels for direct aviation uses and 34 acres of parcels for direct aviation support. Direct aviation use includes the base infrastructure and other facilities or amenities for passenger air service, general aviation, aircraft maintenance, aircraft manufacturing, commercial air cargo and other direct aviation facilities requiring access to the airfield. Direct aviation support pertains to aviation or concurrent commercial use, including facilities for companies providing logistics, materials, cargo, and certain warehousing and distribution operations; and providing such aviation support services for direct aviation users, including the passengers, employees, agents and contractors, guests, and the tenants of the Airport.

Such an expansion would require the extension of Taxiways K, W and S to provide access to the area. This would require some reconfiguration of the existing facilities located along Taxiway H. The construction of additional roadways would be required to provide vehicular access to the direct aviation parcels, which could be developed after the acquisition of Zone 5A. It is to be noted that Figure 9 is conceptual in nature and necessitates additional refinements to determine the optimal location of the taxiway extensions and the optimal site configuration and parcelization strategy.

FIGURE N-7
STUDY AREA 5
PARCEL AND EXISTING LAND USE MAP

LEGEND

- Airport Property Line
- Study Area 5

LAND USES

- Industrial
- Commercial store site
- Commercial office building
- Commercial pad
- 496291 Bexar Appraisal District Property ID

NORTH

0 250' 500' 1000'

Table N-3: Potential Parcels for Land Acquisition - Study Area 5

Property ID	Geographic ID	Type	Property Address	Legal Description	Owner Name	Appraised Value	Type	Land				Improvement / Building
								Description	Acres	Sq. ft	Market Value	
419633	08645-001-0030	Real	10120 JONES MALTSBERGER RD TX	NCB 8645 BLK 1 LOT 3	SHAR-I LP	$180,000	IND	Industrial	1.00	43,560	$100,190	$79,810
419634	08645-001-0280	Real	10130 JONES MALTSBERGER RD	NCB 8645 BLK 1 LOT 28 & 29	SHAR-I LP	$2,133,940	IND	Industrial	3.95	172,239	$323,810	$1,810,130
419637	08645-001-0320	Real	10010 JONES MALTSBERGER RD TX	NCB 8645 BLK 1 LOT 32 (DEE HOWARD SUBD)	CATCLAW FAMILY LTD	$1,840,000	IND	Industrial	5.47	238,273	$595,680	$1,244,320
496267	11971-000-0060	Real	10067 JONES MALTSBERGER RD	NCB 11971 BLK LOT E IRR 385.64 FT OF S IRR 206.7 FT OF 6	BELLEZZA MARBLE & GRANITE CO	$553,000	IND	Industrial	1.58	68,694	$149,070	$403,930
496270	11971-000-0074	Real	10101 JONES MALTSBERGER RD	NCB 11971 BLK LOT N IRR 164 FT OF 7C	WHITIS W L	$75,100	IND	Industrial	0.68	29,795	$72,100	$3,000
496274	11971-007-0410	Real	10215 MCCULLOUGH AVE TX	NCB 11971 BLK 7 LOT 41 & SE 132.5 FT OF W 95 FT OF 42 /H	STEVENS LIGHTING FIXTURE CO	$575,000	CSS	Commercial Store Site	0.74	32,204	$386,450	$188,550
496276	11971-007-0440	Real	527 MATHILDE RD TX	NCB 11971 BLK 7 LOT 44	LAKE INVESTMENT & PROD CO INC	$171,100	CSS	Commercial Store Site	0.43	18,915	$75,660	$95,440
496277	11971-007-0450	Real	535 MATHILDE RD	NCB 11971 BLK 7 LOT 45	MARIBAL PROPERTIES INC	$52,140	CSS	Commercial Store Site	0.33	14,527	$51,140	$1,000
496278	11971-007-0550	Real	900 ISOM RD	NCB 11971 BLK LOT 55	LAKE INVESTMENT & PROD CO INC	$2,628,900	COB	Commercial Office Building	1.33	58,110	$261,500	$2,367,400
496279	11971-007-0580	Real	950 ISOM RD TX	NCB 11971 BLK 7 LOT 58	PAULICK LES	$739,000	COB	Commercial Office Building	1.33	57,935	$260,710	$478,290
496280	11971-007-0600	Real	888 ISOM RD TX	NCB 11971 BLK 7 LOT 60	MARIBAL PROPERTIES	$1,435,270	COB	Commercial Office Building	0.92	40,000	$480,000	$955,270
496281	11971-007-0610	Real	922 ISOM RD TX	NCB 11971 BLK 7 LOT 61	ISOM PARTNERS LTD	$1,470,666	COB	Commercial Office Building	2.05	89,211	$365,770	$1,178,056
496285	11971-007-0640	Real	10101 JONES MALTSBERGER RD	NCB 11971 BLK 7 LOT 64 W L WHITIS SUBD	WHITIS W.L.	$425,000	IND	Industrial	0.86	37,287	$88,370	$336,630
496286	11971-007-0650	Real	10100 REUNION PL TX	NCB 11971 BLK 7 LOT 65 VIEW TOP SUBD UT-1A	AIRPORT CENTER OFFICE	$19,886,400	COB	Commercial Office Building	3.72	162,130	$1,712,090	$18,174,310
496290	11971-007-0671	Real	10110 N US HWY 281	NCB 11971 BLK 7 LOT S 127.18 FT OF 67	PMB EMBASSY LOT LTD	$703,390	CSS	Commercial Store Site	1.12	48,613	$583,360	$120,030
496291	11971-007-0680	Real	990 ISOM RD	NCB 11971 BLK 7 LOT 68 METROPOLITAN SUBDIVISION	990 ISOM HOLDINGS LLC & 990 ISOM LTD	$712,000	CSS	Commercial Store Site	1.20	52,054	$239,450	$472,550
496292	11971-007-0690	Real	10110 N US HWY 281 TX 78216	NCB 11971 BLK 7 LOT 69 P B SUBD UNIT 1-A	BARSHOP-H II JOINT VENTURE	$28,100,370	CSS	Commercial Store Site	3.03	131,987	$1,561,040	$26,539,330
496293	11971-007-0710	Real	10140 N US HWY 281	NCB 11971 BLK 7 LOT 71 P B SUBD UNIT-2	BARSHOP ELSA GAINER MARITAL TRUST	$1,300,000	CSS	Commercial Store Site	2.22	96,485	$1,099,930	$200,070
498147	12051-000-0124	Real	506 SANDAU	NCB 12051 BLK LOT SE 303.40 FT OF 11F	RUNION ETHEL T NON-EXEMPT	$41,460	IND	Industrial	0.45	19,558	$41,460	$0
498148	12051-000-0140	Real	430 SANDAU TX	NCB 12051 BLK LOT 14	SANDAU INVESTMENTS LTD	$1,231,000	CSS	Commercial Store Site	6.35	276,867	$830,600	$400,400
498149	12051-000-0310	Real	538 SANDAU	NCB 12051 BLK LOT 31	SHELTON VIRGINIA ANN FAMILY TRUST	$117,000	IND	Industrial	1.00	43,560	$100,190	$16,810
498150	12051-000-0320	Real	534 SANDAU 78216-3623	NCB 12051 BLK LOT 32	MOREN CLAYTON E	$185,500	IND	Industrial	0.20	8,712	$20,040	$77,290

Property ID	Geographic ID	Type	Property Address	Legal Description	Owner Name	Appraised Value	Type	Land				Improvement / Building
								Description	Acres	Sq. ft	Market Value	
498157	12051-000-0383	Real	981 ISOM RD TX	NCB 12051 BLK LOT NW IRR 148.64 FT OF 38	WEINGARTEN REALTY INVESTORS	$1,865,580	IND	Industrial	1.67	72,876	$158,140	$1,707,440
498158	12051-000-0384	Real	953 ISOM RD TX	NCB 12051 BLK LOT N IRR 224.84 OF S IRR 480 FT OF 38	WEINGARTEN REALTY INVESTORS	$2,558,609	IND	Industrial	3.13	136,299	$254,880	$2,303,729
498159	12051-000-0385	Real	919 ISOM RD TX	NCB 12051 BLK LOT S 255.16 FT OF 38	WEINGARTEN REALTY INVESTORS	$2,875,811	IND	Industrial	3.90	169,710	$317,360	$2,558,451
498162	12051-000-0411	Real	600 SANDAU TX	NCB 12051 BLK LOT 41 & 42	WEISS MARTIN & MARGARET	$830,000	IND	Industrial	1.06	46,203	$106,270	$723,730
498166	12051-000-0441	Real	506 SANDAU	NCB 12051 BLK LOT NW IRR 30 FT OF 44,EXC SE 150.02 FT WILSON INDUSTRIAL PARK	RUNION ETHEL T NON-EXEMPT	$98,180	IND	Industrial	1.21	52,503	$98,180	$0
498168	12051-000-0450	Real	438 SANDAU TX	NCB: 12051 BLK: - LOT: 45 GARY YARD SUBD	GARY MANAGEMENT SERVICES INC	$368,100	CSS	Commercial Store Site	3.00	130,680	$294,030	$74,070
498169	12051-000-0460	Real	500 SANDAU	NCB 12051 BLK LOT 46 SANDAU PLACE	THOMSON F L III L C	$2,600,000	IND	Industrial	4.86	211,527	$395,560	$2,204,440
498171	12051-000-0471	Real	604 SANDAU	NCB 12051 BLK LOT W 76.45 X 349.93 FT OF 47 SANDAU PLACE SUBD	CATCLAW FAMILY LTD PRTNSHP	$285,000	IND	Industrial	0.61	26,746	$64,730	$220,270
498172	12051-000-0472	Real	610 SANDAU TX	NCB 12051 BLK LOT MID 225 FT X 201.16 FT OF 47 SANDAU PLACE SUBD	CATCLAW FAMILY LTD PRTNSHP	$850,000	IND	Industrial	1.04	45,259	$104,100	$745,900
498174	12051-000-0480	Real	506 SANDAU	NCB 12051 BLK LOT 48 SANDAU BUSINESS PARK	RUNION ETHEL T NON-EXEMPT	$24,660	IND	Industrial	0.27	11,631	$24,660	$0
498175	12051-000-0490	Real	540 SANDAU	NCB 12051 BLK LOT 49 SANDAU INDUSTRIAL PARK SUB'D	VOLK VENTURES LLC	$435,0	IND	Industrial	1.95	84,898	$212,250	$222,750
563059	14891-001-0020	Real	10430 GULFDALE TX	NCB 14891 BLK 1 LOT NW 155.1 FT OF 2	SIMONS DANNIE & FAMILY PARTNERSHIP LTD	$722,000	IND	Industrial	0.71	31,020	$73,520	$648,480
563060	14891-001-0030	Real	10444 GULFDALE TX	NCB 14891 BLK 1 LOT 3	ELLIOTT RICHARD C & MARILYN	$143,000	COB	Commercial Office Building	0.48	21,000	$101,850	$41,150
563061	14891-001-0040	Real	10448 GULFDALE TX	NCB 14891 BLK 1 LOT 4	SIEGAL OSCAR & ROSALINDA K	$225,000	IND	Industrial	0.49	21,147	$51,180	$173,820
563062	14891-001-0050	Real	10506 GULFDALE	NCB 14891 BLK 1 LOT 5	SCHELLONE ENTERPRISES INC	$168,500	IND	Industrial	0.52	22,680	$54,890	$113,610
563063	14891-001-0060	Real	10518 GULFDALE TX	NCB 14891 BLK 1 LOT 6	GOLDFIELD INC ETAL	$297,000	COB	Commercial Office Building	0.59	25,767	$124,970	$172,030
563064	14891-001-0070	Real	10526 GULFDALE TX	NCB 14891 BLK 1 LOT 7	AVSS TECHNOLOGIES LLC	$671,000	IND	Industrial	0.94	40,824	$96,750	$574,250
563065	14891-001-0080	Real	10606 GULFDALE	NCB 14891 BLK 1 LOT 8	WATSON SCOTT M ETAL	$105,410	IND	Industrial	1.05	45,832	$105,410	$0
563066	14891-001-0090	Real	10618 GULFDALE TX	NCB 14891 BLK 1 LOT 9	VENTURI ONE	$500,000	IND	Industrial	0.72	31,145	$73,810	$426,190
563067	14891-001-0100	Real	10626 GULFDALE	NCB 14891 BLK 1 LOT 10	EASTRIDGE INC ETAL	$248,000	IND	Industrial	0.60	26,235	$63,490	$184,510
563068	14891-001-0110	Real	10634 GULFDALE TX	NCB 14891 BLK 1 LOT 11	VANDALE INC	$255,000	IND	Industrial	0.54	23,436	$56,720	$198,280
563069	14891-001-0120	Real	10646 GULFDALE TX	NCB 14891 BLK 1 LOT 12	VANDALE INC	$229,000	IND	Industrial	0.57	24,803	$60,020	$168,980
563071	14891-001-0170	Real	10834 VANDALE ST	NCB 14891 BLK 1 LOT 17 & 18	EBONY INC ETAL	$383,000	IND	Industrial	1.01	43,790	$100,720	$282,280
563072	14891-001-0190	Real	10856 VANDALE ST TX	NCB 14891 BLK 1 LOT 19	MPJ CAPITAL MANAGEMENT LTD	$338,000	IND	Industrial	0.51	22,000	$53,240	$284,760
563073	14891-001-0200	Real	10860 VANDALE ST TX	NCB 14891 BLK 1 LOT 20	HSMO INC	$215,000	IND	Industrial	0.54	23,658	$57,250	$157,750
563074	14891-001-0210	Real	903 ISOM RD TX	NCB 14891 BLK 1 LOT 21	DUNBAR ITC LTD	$1,025,000	COB	Commercial Office Building	1.49	64,980	$282,660	$742,340
563075	14891-001-0220	Real	10730 GULFDALE TX	NCB 14891 BLK 1 LOT 22 VIEW PARK UNIT #2	FIRSTMARK CREDIT UNION	$1,275,000	CSS	Commercial Store Site	2.94	127,848	$383,540	$891,460

Property ID	Geographic ID	Type	Property Address	Legal Description	Owner Name	Appraised Value	Type	Land				Improvement / Building
								Description	Acres	Sq. ft	Market Value	
563076	14892-002-0010	Real	831 ISOM RD TX	NCB 14892 BLK 2 LOT 1	DUNBAR TRADE CENTER LLC &	$1,790,000	IND	Industrial	2.31	100,470	$1,060,960	$729,040
563077	14892-002-0020	Real	10443 GULFDALE TX	NCB 14892 BLK 2 LOT 2 /C/	OCTAGON GROUP CORPORATION	$1,367,550	COB	Commercial Office Building	1.75	76,079	$485,380	$882,170
563078	14892-002-0031	Real	10515 GULFDALE TX	NCB 14892 BLK 2 LOT 3 & 4	THE OCTAGON GROUP CORPORATION	$1,507,000	COB	Commercial Office Building	1.44	62,899	$339,660	$1,167,340
563079	14892-002-0050	Real	10521 GULFDALE TX	NCB 14892 BLK 2 LOT 5	TCW GULFDALE 10821 PROPERTIES LTD	$410,000	COB	Commercial Office Building	0.62	26,966	$156,940	$253,060
563080	14892-002-0060	Real	10531 GULFDALE TX	NCB 14892 BLK 2 LOT 6	ITAMIC INC	$438,920	IND	Industrial	0.71	30,912	$87,790	$262,720
563081	14892-002-0070	Real	10537 GULFDALE TX	NCB 14892 BLK 2 LOT 7	OATES WILLIAM D & MARILYN	$449,330	IND	Industrial	0.80	34,953	$99,270	$250,100
563082	14892-002-0080	Real	10647 GULFDALE	NCB 14892 BLK 2 LOT 8 THRU 11 & S IRR 20.76 FT OF 12	GULFTERRA ENERGY PARTNERS LP & ENTERPRISE GTM HOLDINGS LP	$1,489,500	COB	Commercial Office Building	2.44	106,160	$509,570	$979,930
563083	14892-002-0130	Real	10715 GULFDALE TX	NCB 14892 BLK 2 LOT 13 N 81.7 FT OF 12 & S IRR 15 FT OF 14	HOELKER RORY L & CRYSTAL S ETAL	$2,200,000	COB	Commercial Office Building	1.29	56,278	$303,900	$1,896,100
563084	14892-002-0142	Real	10721 GULFDALE TX	NCB 14892 BLK 2 LOT N IRR 90.48 OF 14	BRADFORD RALPH	$245,000	COB	Commercial Office Building	0.44	19,182	$115,090	$129,910
563085	14892-002-0150	Real	10731 GULFDALE TX	NCB 14892 BLK 2 LOT 15	KABUD PROPERTIES LTD	$590,000	COB	Commercial Office Building	0.77	33,408	$190,430	$399,570
563086	14892-002-0160	Real	10737 GULFDALE TX	NCB 14892 BLK 2 LOT 16	SB MECHLER PROPERTIES LLC	$876,780	COB	Commercial Office Building	0.68	29,750	$173,150	$703,630
563087	14892-002-0170	Real	10803 GULFDALE TX	NCB 14892 BLK 2 LOT 17	APP GULFDALE LP	$475,000	COB	Commercial Office Building	0.69	30,000	$174,600	$300,400
563088	14892-002-0180	Real	10815 GULFDALE TX	NCB 14892 BLK 2 LOT 18	SHERWOOD ROBERT SCOTT	$476,000	COB	Commercial Office Building	0.69	30,000	$174,600	$301,400
563089	14892-002-0191	Real	10821 GULFDALE TX	NCB 14892 BLK 2 LOT S 58.37 OF 19	TCW GULFDALE 10821 PROPERTIES LTD	$215,000	COB	Commercial Office Building	0.33	14,470	$86,820	$128,180
563091	14892-002-0210	Real	10843 GULFDALE TX	NCB 14982 BLK 2 LOT 21 & SW 125 FT OF 22	10843 GULFDALE LTD	$1,228,180	COB	Commercial Office Building	1.30	56,570	$254,570	$973,610
563094	14892-002-0231	Real	100 SANDAU RD TX	NCB 14892 BLK 2 LOT 23 & NE 40 FT OF 22	SKYPORT X LLC	$2,400,000	COB	Commercial Office Building	1.04	45,485	$545,820	$1,854,180
563095	14892-002-0240	Real	10835 GULFDALE	NCB 14892 BLK 2 LOT 24 (MONARCH PARK SUBD)	CLEAR CHANNEL COMMCTN INC	$361,700	COB	Commercial Office Building	0.49	21,383	$124,450	$237,250
563096	14892-002-0250	Real	10823 GULFDALE TX	NCB 14892 BLK 2 LOT 25 (MONARCH PARK SUBD)	BJ ASSOC OF SAN ANTONIO LLC	$388,000	COB	Commercial Office Building	0.49	21,315	$124,050	$263,950
563097	14893-003-0010	Real	10862 GULFDALE TX	NCB 14893 BLK 3 LOT 1 & 2	THOMPSON JAMES ORVILLE & LYNN STANLEY	$665,000	COB	Commercial Office Building	1.15	50,048	$333,820	$331,180
563098	14893-003-0030	Real	10818 GULFDALE TX	NCB 14893 BLK 3 LOT 3 & 4	GULFDALE PROPERTIES	$565,000	CSS	Commercial Store Site	0.86	37,606	$142,900	$422,100
563099	14893-003-0050	Real	10806 GULFDALE	NCB 14893 BLK 3 LOT 5	SAN ANTONIO CHAPT ASSOC GEN	$320,000	CSS	Commercial Store Site	0.41	17,980	$71,920	$248,080
563100	14893-003-0060	Real	10843 VANDALE ST TX	NCB 14893 BLK 3 LOT 6	GASCARD PARTNERS LP	$204,360	PAD	Commercial Pad	0.51	22,218	$151,750	$52,610
563101	14893-003-0070	Real	10843 VANDALE ST	NCB 14893 BLK 3 LOT 7	BERKENMEIER HOWARD R &	$276,000	COB	Commercial Office Building	0.40	17,314	$86,570	$189,430
563102	14893-003-0080	Real	10859 VANDALE ST TX	NCB 14893 BLK 3 LOT 8 & 9	THOMPSON JAMES ORVILLE & LYNN STANLEY	$592,000	CSS	Commercial Store Site	1.03	44,770	$164,750	$427,250

Property ID	Geographic ID	Type	Property Address	Legal Description	Owner Name	Appraised Value	Type	Land				Improvement / Building
								Description	Acres	Sq. ft	Market Value	
1040984	12051-000-0500	Real	995 ISOM RD TX	NCB 12051 BLK LOT 50 "SUMMIT INSURANCE GROUP SUBDIVISION"	ZARS LEIF A	$232,440	CSS	Commercial Store Site	1.16	50,530	$232,440	$0
1060597	11971-007-0730	Real	10001 REUNION PL TX	NCB 11971 BLK 7 LOT 73 (UNION SQUARE II)	SAOP UNION SQUARE II LP	$18,150,000	COB	Commercial Office Building	3.00	130,811	$1,381,360	$16,768,640
1060598	11971-007-0740	Real	10101 REUNION PL TX	NBCB 11971 BLK 7 LOT 74 (UNION SQUARE II)	SAOP UNION SQUARE LP	$20,500,000	COB	Commercial Office Building	4.32	188,092	$1,986,250	$18,513,750
419633	08645-001-0030	Real	10120 JONES MALTSBERGER RD TX	NCB 8645 BLK 1 LOT 3	SHAR-I LP	$180,000	IND	Industrial	1.00	43,560	$100,190	$79,810
419634	08645-001-0280	Real	10130 JONES MALTSBERGER RD	NCB 8645 BLK 1 LOT 28 & 29	SHAR-I LP	$2,133,940	IND	Industrial	3.95	172,239	$323,810	$1,810,130

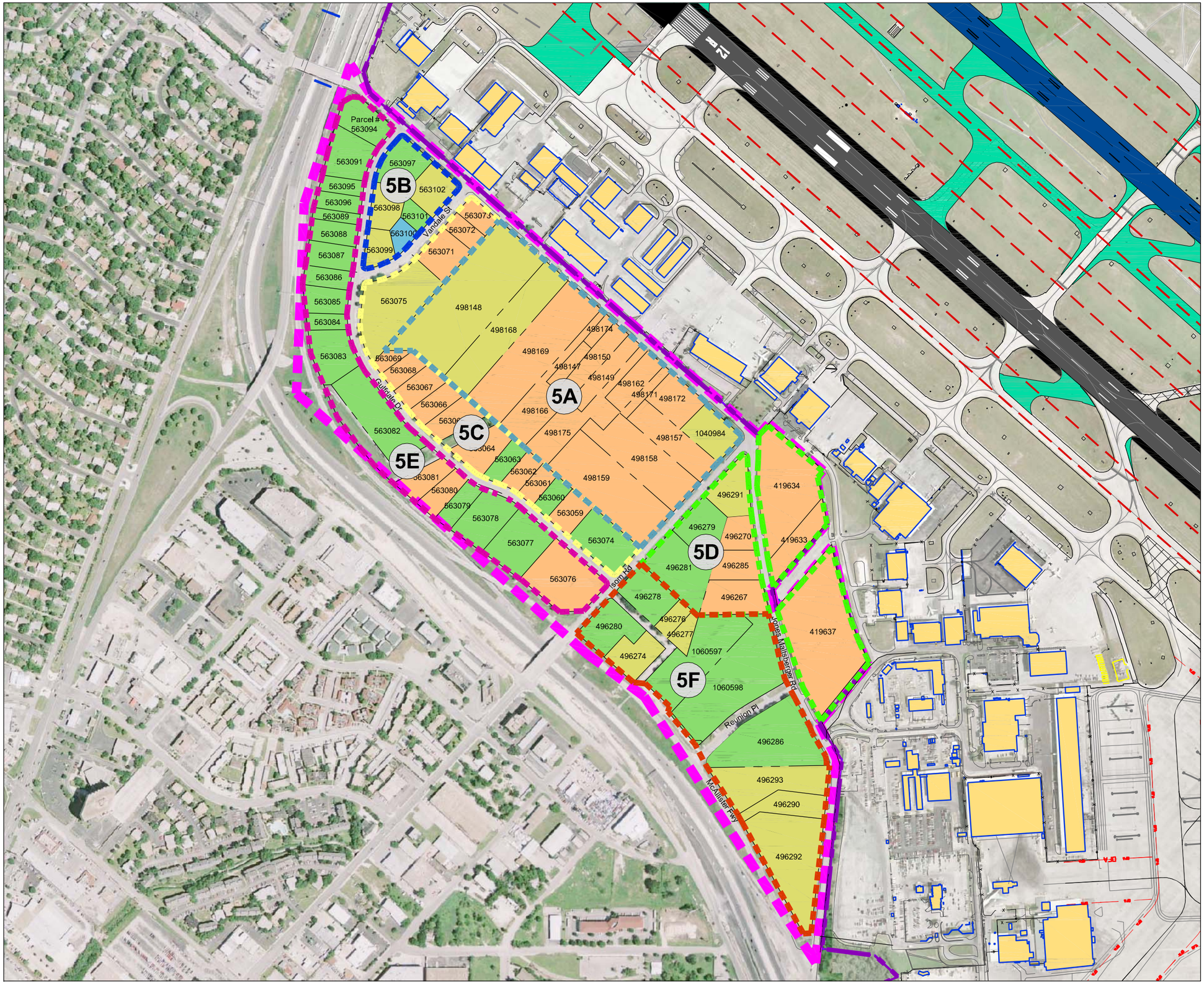

FIGURE N-8
STUDY AREA 5
ACQUISITION ZONES

LEGEND

Airport property line

Study area 5

LAND USES

Industrial

Commercial store site

Commercial office building

Commercial pad

496291 Bexar Appraisal District Property ID

ACQUISITION ZONES

Zone 5A
Approximate acreage: 32 ac.
Current uses: rental car service center (Budget), retail/industrial for aviation and non-aviation tenants
Total appraised value: $14,163,340

Zone 5B
Approximate acreage: 6 ac.
Current uses: retail/offices - non-aviation uses
Total appraised value: $2,622,360

Zone 5C
Approximate acreage: 14 ac.
Current uses: retail/offices - non-aviation uses
Total appraised value: $6,799,910

Zone 5D
Approximate acreage: 17 ac.
Current uses: multi-tenant offices, construction supply retail facilities
Total appraised value: $8,128,706

Zone 5E
Approximate acreage: 20 ac.
Current uses: retail/offices - non-aviation uses
Total appraised value: $16,907,960

Zone 5F
Approximate acreage: 24 ac.
Current uses: hotel (Embassy Suites), rental car service center (Enterprise), office buildings (Union Square Offices, Airport Center LLP)
Total appraised value: $93,502,570

Note:
Appraised values were obtained from Bexar County Appraisal District, accessed in June 2010. Appraised values include the cost of land and improvements, but do not reflect the cost of acquiring an ongoing business.

NORTH

0 250' 500' 1000'

FIGURE N-9
STUDY AREA 5
POTENTIAL FUTURE LAND USES

LEGEND

- Airport property line
- Study area 5
- Area excluded from acquisition program
- Future airport development land - approx. 105 acres

Note:
This drawing is conceptual in nature and subject to further analysis and refinement.

NORTH

0 250' 500' 1000'

5.3. Potential Funding Sources

The Study Area parcels may be eligible for AIP funding as determined in the Master Plan as needed for "Future Airport Development." Any Study Area 5 parcels designated for direct aviation uses on the Airport Layout Plan ("ALP") should be eligible for consideration for AIP funding. Study Area 5 parcels reflected for future non-aviation may be eligible for AIP funding when the Land Use Plan demonstrates the concurrent commercial uses for the property. The ultimate uses for such property purchased with federal funding are subject to approval by the FAA pursuant to Order 5190.6B (Compliance Requirements) Section 5. There are numerous restrictions on the development of Airport owned land and the use of the revenue from that land that are driven by the Grant Assurances. These restrictions do not prohibit Airport land development; however, they do put limitations to some aspects of this development.

In the event the Airport does not pursue federal AIP funding for certain parcels in Study Area 5, the restrictions pertaining to specific FAA approvals for non-aviation development can be avoided. A Land Use Plan can identify the potential funding sources and acquisition phasing plan for the Study Area 5 properties.

5.4. Conclusion

FAA will probably support the acquisition of the land because it favors airport property generally to extend to manmade or natural boundaries (in this case Loop 410) and therefore supports "airport purposes" and a large portion of the land is needed for direct aviation purposes.

6. ACQUISITION CHALLENGES

There are several factors to consider in the development of a Land Use Plan that anticipates the acquisition of land for future airport development purposes. Not all factors can be determined prior to the development of a comprehensive Land Use Plan, but the general considerations are described below.

Establishing the acquisition and redevelopment funding strategy for an airport aviation and commercial land development program requires not only the identification of funding sources for infrastructure but also the determination of the cost benefit/return on investment for the direct costs incurred by the airport relative to the ground rentals and other fees received by the airport from the proposed future uses of the Study Area parcels. Typically, airports with a strategic development program that includes the acquisition of additional land to support future airport development have taken a long term business approach for the program, understanding that a significant financial investment for acquisition and infrastructure is initially required to establish a program that will provide direct rental revenues and fees at the airport for decades in the future.

In addition to the direct costs associated with the acquisition and redevelopment of the Study Areas 1 & 2, there are potential Operations & Maintenance (O&M) implications. For example, the relocation of the economy lot to a location farther away from the terminal could negatively impact the parking rates that can acceptably be charged. Also, longer driving distances for the shuttles linking the lots to the terminal would drive O&M costs up.

As described herein, certain parcels in the Study Area have been eliminated from consideration due to the current uses of the parcels and the related cost of acquisition. Other parcels within the Study Areas have current uses that compete with uses and services provided by the Airport, such as the Airport Security Parking operation. It is unknown whether such property owners

would be willing to sell property to the Airport and therefore alternative scenarios are reflected herein.

Also, the development of a comprehensive Land Use Plan based on the recommendations set forth in the Master Plan and the subsequent initiation and implementation of a land acquisition and redevelopment program may require additional Airport staff and resources than currently available at the Airport.

7. RECOMMENDED NEXT STEPS

The information and recommendations provided herein provide a preliminary assessment of the Study Areas. It is recommended that the Airport prepare a detailed Land Use Plan to develop a strategy for the acquisition and redevelopment of the Study Area parcels. The initial objectives for the creation of the Land Use Plan are to identify and define the key factors (e.g., financial, legal, operational, physical, etc.) that would impact the Airport's ability to acquire and redevelop the Study Area parcels. The Land Use Plan would serve as a framework for the long-term development of not only the direct aviation land areas, but also the aviation support and commercial areas within Airport property. It would primarily focus on (1) providing a new program for the Airport for the purpose of generating non-airline related revenues in order to enhance the overall revenues of the Airport, (2) promoting the growth of air service, (3) creating jobs, and (4) ensuring the Airport remains financially self-sustaining.

Direct aviation development of Airport property is forecasted and reflected in the Master Plan. Commercial development of Airport property for non-aviation concurrent commercial uses is dependent upon the local market demand for such developments. A real estate commercial market assessment is recommended to be conducted to identify the market opportunities or address a specific industry that the Airport may want to target. This market assessment will facilitate the determination of the highest and best use for the Study Area considering the full spectrum of potential land uses allowed by the FAA. In addition, an absorption analysis would be conducted using economic indicators to project demand for space for each real estate product type (industrial – warehouse, industrial – flex, office and retail). The results of the non-aviation market assessment and the aviation demand forecast reflected in the Airport's Master Plan are critical components in the development of the Land Use Plan.

APPENDIX O

FINANCIAL PLAN

I. Financial Analysis

1.1 Introduction

The financial viability of implementing the Preferred Development Plan ("PDP") recommendations for the San Antonio International Airport ("SAT") is discussed in this chapter. The actual implementation schedule for the various improvements identified in the PDP will be defined by development triggers and demand growth rather than specific time frames. For purposes of this financial analysis, a specific implementation schedule was assumed; however, it should be noted that this schedule and the resulting financial analysis are intended only to demonstrate financial viability assuming the demand volumes and patterns associated with the implementation schedule and the recognition that the actual financing strategies used will be determined as implementation nears. This analysis includes an in-depth evaluation of the short-term plan of the PDP as well as the capital improvement plan for projects at SAT in fiscal year ("FY") 2010 through FY 2016 ("2010 Capital Program"), as discussed within this report; and a more general evaluation of the intermediate- and long-term plans of the PDP.

This chapter examines the financial framework for SAT; the sources of funding for the short-term PDP and the 2010 Capital Program (collectively, the "Short-Term Projects"); outstanding bonds and debt service requirements, O&M Expenses; Passenger Facility Charge ("PFC") and nonairline revenues; the projections of airline rates and charges; cost per enplaned passenger; cash flow; debt service coverage; and a summary. All Exhibits are presented at the end of the chapter.

1.2 Financial Structure and Accounting

The Department of Aviation ("the Department") is an enterprise fund of the City of San Antonio (the "City"). From an accounting perspective, the Department is operated as an independent enterprise and is separate from other City enterprises and funds. The Department operates two airports owned by the City, SAT and Stinson (collectively, the "Airport System"). For financial reporting purposes, the City combines the operations of the two airports.

The Department funds operations at SAT (and Stinson) with revenues generated from Airport rentals, fees, and charges. Capital improvements at SAT are funded by the Department with (1) revenues generated from Department rentals, fees, and charges; (2) federal, state, and other grants-in-aid; (3) PFC revenues; (4) and bond proceeds as described in the next paragraph. No general tax fund revenues are used to operate or maintain either SAT or Stinson. Funding for capital improvements will be discussed in more detail in a subsequent section.

The City currently has outstanding the following types of bonds:

- **General Airport Revenue Bonds ("Airport Revenue Bonds").** Airport Revenue Bonds, including revenue refunding bonds, are secured by total Airport System revenues, excluding PFC Revenues.

- **PFC Bonds.** PFC Bonds are special, limited obligations of the City payable from and secured by a pledge of PFC Revenues.

- **Special Facilities Bonds.** Special facility bonds are secured solely by special facility lease payments made by the tenant of the facility to a trustee, and are not secured by the Department's Gross Revenues. The special facility lease payments are not available for the payment of Airport Revenue Bond debt service.

Historically, the City has had lease agreements ("Signatory Agreement") with airlines operating from SAT. The airlines that operated under a Signatory Agreement (the "Signatory Airlines") include Aerolitoral, AirTran, American, Continental, Delta, Frontier, Mexicana (ceased service in August 2010), Southwest, US Airways, and United.

Currently, the City is negotiating a new Signatory Agreement with the airlines serving SAT and until a Signatory Agreement is executed the City has adopted an airline rents, fees, and charges ordinance ("Rate Ordinance") under which landing fee rates are annually calculated according to a cost center compensatory methodology; terminal rental rates, apron use fees, BHS charges, loading bridge charges are annually calculated according to a commercial compensatory methodology.

1.3 Capital Improvement Program – Projects and Funding Sources

In addition to the projects included in SAT's 2010 Capital Program, the PDP in the Master Plan includes projects that are intended to address existing facility concerns and others that are required to accommodate the Master Plan's forecast growth in Airport activity. The City intends to fund the 2010 Capital Program, which totals approximately $564.5 million and the short-term PDP, which totals approximately $191.0 million and through a combination of Federal Aviation Administration ("FAA") Airport Improvement Program ("AIP") grants (entitlements and discretionary), Transportation Security Administration ("TSA") grants, state of Texas grants, Airport System funds, proceeds from the sale of GARBs, proceeds from the sale of passenger facility charge ("PFC") Bonds, pay-as-you-go PFC revenues, customer facility charge ("CFC") revenues, and third-party funding. **Exhibit 1** presents the project costs and funding sources for the Short-Term Projects, which total approximately $755.6 million. Approximately $370.0 million of project costs was funded prior to FY 2010. The remaining $385.9 million of projects will be funded from FY 2011 through FY 2016 and the following sections briefly describe the anticipated funding sources the Short-Term Projects.

1.3.1 AIP Grants

One of the main sources of funding for airport improvements is federal AIP grants. The AIP was initially authorized under the Airway Improvement Act of 1982 to assist airport sponsors in funding planning, development, and noise compatibility projects at public-use airports nationwide to accommodate projected civil aviation growth. To be eligible for funding assistance, an airport must be included in the National Plan of Integrated Airport Systems.

The AIP is funded through the Aviation Trust Fund, which was established under the Airway Revenue Act of 1970. Revenues for the Aviation Trust Fund are derived through the levying of taxes and fees on aviation fuel and lubricants, airline tickets, international departing passengers, aircraft freight, and other components of the aviation industry. Funds deposited into the Aviation Trust Fund are distributed to eligible airports throughout the United States and its territories through grants administrated by the FAA under appropriations limits established by the United States Congress.

In administering the AIP, the FAA must comply with various statutory provisions, formulas, and set-asides established by law, which specify how AIP grant funds are to be distributed among airports. Each year, the FAA uses the statutory formulas to determine how much in apportionment funds are to be made available to each airport. To receive these entitlement funds, an airport operator must submit a valid grant application to the FAA. Individual airports do not have to use these funds in the year they are made available. Airports are given up to 3 years to use their apportionment funds, allowing larger amounts to accumulate to pay for more costly projects. Once the apportionments have been determined, the remaining AIP funds are deposited in the AIP discretionary fund, which consists of set-asides that are established by statute and other distributions.

Exhibit 1
Project Costs and Funding Sources
Short-Term PDP and 2010 Capital Program
San Antonio International Airport
San Antonio Airport System

	Total Project Costs	Project Costs Funded Prior to FY 2011	Project Costs to be Funded	Funding FY 2011 - FY 2016								
				AIP	TSA	State Funds	Airport System Funds	PAYGO PFC	PFC Bonds	GARBs	Future CFC	Other Third-Party Funding
SHORT-TERM PDP:												
Land Acquisition:												
LA1a - Acquire parcels for rental car maintenance and storage facility and economy parking lot	$ 15,000,000		$ 15,000,000								$ 15,000,000	
Land Acquisition Subtotal	$ 15,000,000	$ -	$ 15,000,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 15,000,000	$ -
Commercial Passenger Terminal Development												
*T1 - Terminal A re-lifing project	$ 29,112,000		$ 29,112,000							$ 29,112,000		
Commercial Passenger Terminal Development	$ 29,112,000	$ -	$ 29,112,000	$ -	$ -	$ -	$ -	$ -	$ -	$ 29,112,000	$ -	$ -
Landside Development												
L1 - Construct CONRAC/parking facility	$ 127,630,000		$ 127,630,000								$ 127,630,000	
Landside Development Subtotal	$ 127,630,000	$ -	$ 127,630,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 127,630,000	$ -
Commercial Aviation Development	-											
CA1 - Prepare north side commercial aviation site for development	$ 240,000		$ 240,000									$ 240,000
- Taxiway connector	990,000		$ 990,000									990,000
Commercial Aviation Development Subtotal	$ 1,230,000	$ -	$ 1,230,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 1,230,000
Airline and Airport Support												
*S1 - Relocate airport maintenance facilities - F	$ 1,200,000		$ 1,200,000							$ 1,200,000		
S2 - Rehabilitate West Cargo Building	2,860,000		$ 2,860,000									2,860,000
*S3 - Construct airport administrative office building	14,000,000		$ 14,000,000							14,000,000		
Airline and Airport Support Subtotal	$ 18,060,000	$ -	$ 18,060,000	$ -	$ -	$ -	$ -	$ -	$ -	$ 15,200,000	$ -	$ 2,860,000
Short-term Implementation Plan Subtotal	**$ 191,032,000**	**$ -**	**$ 191,032,000**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ 44,312,000**	**$ 142,630,000**	**$ 4,090,000**
2010 CAPITAL PROGRAM:												
Airfield												
Airfield Projects	$ 74,759,922	$ 24,106,532	$ 50,653,390	$ 36,410,543	$ -	$ -	$ 813,477	$ 11,323,371	$ -	$ 2,106,000	$ -	$ -
Terminal Projects	305,356,991	280,044,113	25,312,878	-	-	-	(4,516,385)	-	25,598,741	4,230,522	-	-
Acoustical Program	117,951,187	46,701,187	71,250,000	57,000,000	-	-	2,000,000	-	12,250,000	-		
Apron	38,319,496	11,065,587	27,253,909	20,363,497	-	-	-	6,890,412	-	-		
Parking Revenue System	4,016,530	16,530	4,000,000	-	-	-	4,000,000	-	-	-		
Other SAT Projects	19,678,044	7,763,044	11,915,000	675,000	-	-	11,010,000	-	-	230,000	-	-
Stinson	4,462,000	-	4,462,000	-	-	3,525,000	937,000	-	-	-		
Total 2010 Capital Program *	**$ 564,544,170**	**$ 369,696,992**	**$ 194,847,177**	**$ 114,449,040**	**$ -**	**$ 3,525,000**	**$ 14,244,092**	**$ 18,213,783**	**$ 37,848,741**	**$ 6,566,522**	**$ -**	**$ -**
Total Short-Term PDP and 2010 Capital Program	**$ 755,576,170**	**$ 369,696,992**	**$ 385,879,177**	**$ 114,449,040**	**$ -**	**$ 3,525,000**	**$ 14,244,092**	**$ 18,213,783**	**$ 37,848,741**	**$ 50,878,522**	**$ 142,630,000**	**$ 4,090,000**

*Project costs identified with an asterisk in PDP were originally included in the 2010 Capital Program in the Series 2010 Report of the Airport Consultant.

Source: City of San Antonio, Department of Aviation (2010 Capital Program costs); AECOM (Short-Term PDP costs)
Prepared by: Ricondo & Associates, Inc.

AIP grants are usually limited to planning, design, and construction projects that improve aircraft operations, such as runways, taxiways, aprons, and land purchases, as well as to purchase security, safety, and emergency equipment. AIP grants are also available to plan for and implement programs that mitigate aircraft noise in the vicinity of airports. However, projects related to commercial revenue-generating portions of terminals, such as concessions, commercial maintenance hangars, fuel farms, parking garages, and off-airport road construction are generally not eligible for these grants.

SAT expects to use a combination of AIP discretionary and entitlement grants to fund approximately $114.4 million of AIP-eligible projects in FY 2011 through FY 2016.

1.3.2 TSA Grants and State Funds

The Department obtained a grant from the TSA to fund, in part, a baggage handling system that became operational in November 2010. The Department also anticipates grant funding in the amount of approximately $3.5 million to fund projects at Stinson Municipal Airport in FY 2011 through FY 2016.

1.3.3 Airport System Funds

Revenues remaining after payment and transfer of the Department's obligations are deposited into the Capital Improvements Account and those funds can be used for capital projects at the Department's sole discretion. As shown in Exhibit 1, approximately $14.2 million of project costs are expected to be funded from Capital Improvements Account funds in FY 2011 through FY 2016.

1.3.4 Passenger Facility Charge Revenues

In accordance with the Aviation Safety and Capacity Expansion Act of 1990, as amended by the Aviation Investment and Reform Act for the 21st Century (AIR-21), the City received approval to begin collecting on November 1, 2001 a PFC of $3.00 per eligible enplaned passenger at SAT. The City subsequently received approval from the FAA to impose a PFC of $4.50 per eligible enplaned passenger at SAT. SAT currently has authority to impose and use PFCs for projects totaling approximately $575.5 million.

Projects that are approved to be funded with PFCs may be funded on a pay-as-you-go basis ("PAYGO") or on a leveraged basis, in which PFC revenues are pledged toward debt service payments on PFC bonds.

The City currently has the following series of PFC bonds outstanding:

- Series 2002 PFC Bonds
- Series 2005 PFC Bonds
- Series 2007 PFC Bonds
- Series 2010 PFC Bonds

As shown on Exhibit 1, approximately $18.2 million of projects are assumed to be funded on a PAYGO basis and approximately $37.8 million of projects are assumed to be funded with proceeds from PFC bonds in FY 2011 through FY 2016.

1.3.5 General Airport Revenue Bonds (GARBs)

The City has the following outstanding GARBs including certain GARBs for which PFCs are eligible to repay annual debt service:

- Series 2001 Revenue Bonds

- Series 2002 Revenue Bonds
- Series 2003 Forward Refunding Bonds
- Series 2006 Revenue Refunding Bonds
- Series 2007 Revenue Refunding Bonds
- Series 2010A Revenue Bonds
- Series 2010B Revenue Refunding Bonds

Approximately $50.9 million of projects are assumed to be funded with proceeds from one or more of the above GARB series in FY 2011 through FY 2016.

1.3.6 Customer Facility Charge Revenues

SAT is currently in the process of evaluating the implementation of a CFC at SAT. A CFC is a charge assessed to rental car customers and the resulting revenues are to be used for rental car projects. Two of the projects included in the short-term PDP are assumed to be undertaken only if a CFC is implemented and generates enough revenues to fund the projects. As shown on Exhibit 1, approximately $142.6 million of projects are assumed to be funded with CFC revenues in FY 2011 through FY 2016.

1.3.7 Third-Party Funding

Certain projects included in the PDP are assumed to be undertaken only if there is demand for the project from a third party and the third party is willing to fund. As shown on Exhibit 1, approximately $4.0 million of projects will be undertaken and funded with third party funding in FY 2011 through FY 2016.

1.4 Outstanding Bonds and Debt Service Requirements

Exhibit 2 presents budgeted and projected debt service requirements associated with outstanding bonds for FY 2011 through FY 2016. As shown in Exhibit 2, total PFC supported debt service is projected to increase from approximately $12.6 million budgeted for FY 2011 to approximately $13.2 million FY 2016. Non-PFC supported debt (GARB debt service) is projected to decrease from approximately $24.3 million budgeted for FY 2011 to approximately $21.5 million in FY 2016.

1.5 O&M Expenses

O&M Expenses are reported in the following categories: Personal Expenses; Contractual Services; Commodities, Other, and Common Services. O&M Expenses do not include depreciation expense, interest expense on bonds, amortization of bond costs, or gain/loss on disposal of fixed assets. For the purposes of calculating airline fees and rents at SAT, O&M Expenses are classified into cost centers.

Historically, direct cost centers have included:

- Airfield
- Terminal 1
- Terminal 2
- Aviation Service Area (primarily FBO and cargo facilities)
- Commercial and Industrial

Exhibit 2 (Page 1 of 2)
DEBT SERVICE
SAN ANTONIO AIRPORT SYSTEM
(for the Fiscal Years ending September 30)

		Projected 2011	2012	2013	2014	2015	2016
Total Debt Service							
Series 2001 Revenue Bonds [1/]		$ 421,880	$ 517,707	$ 478,178	$ 3,852,134	$ 4,976,224	$ 4,980,761
Series 2002 Revenue Bonds		7,503,893	7,507,793	7,512,343	7,518,568	7,528,293	7,535,655
Series 2002 PFC Bonds		2,747,400	2,746,625	2,747,550	2,746,825	2,752,075	2,757,725
Series 2003 Forward Refunding Bonds [1/]		6,654,558	5,764,127	5,567,957	-	-	-
Series 2005 PFC Bonds		2,692,338	2,684,838	2,684,975	2,687,225	2,686,325	2,687,275
Series 2006 Refunding Bonds		3,124,250	3,102,250	3,125,000	3,885,000	-	-
Series 2007 Bonds		6,223,640	6,220,390	6,222,140	6,223,390	6,223,890	6,223,390
Series 2007 PFC Bonds		5,331,163	5,332,163	5,328,663	5,330,663	5,332,663	5,329,413
Series 2010A GARBs [2/] and Series 2010 PFC Bonds		2,179,755	3,006,915	4,399,206	5,204,606	5,203,606	5,200,106
Total Debt Service		$ 36,878,875	$ 36,882,807	$ 38,066,011	$ 37,448,411	$ 34,703,075	$ 34,714,324
Total Debt Service by Type							
PFC Supported Debt Service							
Series 2002 PFC Bonds		$ 2,747,400	$ 2,746,625	$ 2,747,550	$ 2,746,825	$ 2,752,075	$ 2,757,725
Series 2005 PFC Bonds		2,692,338	2,684,838	2,684,975	2,687,225	2,686,325	2,687,275
Series 2007 PFC Bonds		5,331,163	5,332,163	5,328,663	5,330,663	5,332,663	5,329,413
Series 2010 PFC Bonds		1,856,681	2,394,775	2,395,475	2,395,875	2,395,975	2,393,875
Total PFC Supported Debt Service	[A]	$ 12,627,581	$ 13,158,400	$ 13,156,663	$ 13,160,588	$ 13,167,038	$ 13,168,288
Non PFC Supported Debt Service							
Series 2001 Revenue Bonds [1/]		$ 421,880	$ 517,707	$ 478,178	$ 3,852,134	$ 4,976,224	$ 4,980,761
Series 2002 Revenue Bonds		7,503,893	7,507,793	7,512,343	7,518,568	7,528,293	7,535,655
Series 2003 Forward Refunding Bonds [1/]		6,654,558	5,764,127	5,567,957	-	-	-
Series 2006 Refunding Bonds		3,124,250	3,102,250	3,125,000	3,885,000	-	-
Series 2007 Bonds		6,223,640	6,220,390	6,222,140	6,223,390	6,223,890	6,223,390
Series 2010A GARBs [2/]		323,074	612,140	2,003,731	2,808,731	2,807,631	2,806,231
Total Non PFC Supported Debt Service	[B]	$ 24,251,294	$ 23,724,407	$ 24,909,349	$ 24,287,824	$ 21,536,038	$ 21,546,037
Total Debt Service	[C = A + B]	$ 36,878,875	$ 36,882,807	$ 38,066,011	$ 37,448,411	$ 34,703,075	$ 34,714,324

Note:
1/ After incorporating Series 2010B Taxable GARBs.
2/ Net of capitalized interest.

Sources: City of San Antonio, Department of Aviation (Actual FY 2010 and projected for all series except 2010A GARBs, 2010B Taxable GARBs, and 2010 PFC Bonds), October 2010; and Coastal Securities (2010A GARBs, 2010B Taxable GARBs, and 2010 PFC Bonds), December 2010.
Prepared by: Ricondo & Associates, Inc.

Exhibit 2 (Page 2 of 2)
DEBT SERVICE
SAN ANTONIO AIRPORT SYSTEM
(for the Fiscal Years ending September 30)

	Projected 2011	2012	2013	2014	2015	2016
Non PFC Supported Debt Service Allocated to Cost Centers						
Airfield	$ 1,478,327	$ 1,461,703	$ 1,484,536	$ 1,841,175	$ 1,986,000	$ 1,986,606
Apron	347,115	301,290	290,676	7,579	9,346	9,355
Landside Terminal Building	5,405,084	5,221,363	5,806,968	4,667,989	4,249,290	4,250,120
Concourse A	3,465,017	3,279,155	3,815,636	2,373,709	1,857,627	1,857,550
Concourse B	2,277,353	2,282,078	2,334,508	2,713,257	2,835,619	2,836,705
Baggage Handling System	1,596,814	1,604,070	1,628,707	1,690,020	1,705,108	1,704,937
Loading Bridge	226,490	226,372	226,435	226,481	226,499	226,481
Other Cost Centers	718,272	624,039	601,889	34,259	44,001	44,035
Parking	8,734,658	8,722,006	8,717,736	10,725,016	8,612,275	8,619,972
Stinson	2,164	2,331	2,258	8,337	10,273	10,275
Total Non PFC Supported Debt Service	$ 24,251,294	$ 23,724,407	$ 24,909,349	$ 24,287,824	$ 21,536,038	$ 21,546,037
Less: Non PFC Supported Debt Service Paid with PFCs	$ (878,614)	$ (985,042)	$ (2,376,838)	$ (3,027,188)	$ (3,026,737)	$ (3,025,745)
Net Non PFC Supported Debt Service	$ 23,372,680	$ 22,739,365	$ 22,532,511	$ 21,260,636	$ 18,509,301	$ 18,520,292

Source: Ricondo & Associates, Inc., December 2010.
Prepared by: Ricondo & Associates, Inc.

- Other Buildings and Areas
- Parking
- Stinson

In conjunction with the negotiation of a new Signatory Agreement, the Department has implemented changes such that, beginning with the FY 2011 budget, direct cost centers include:

- Airfield
- Apron
- Landside Terminal Building
- Concourse A (formerly Terminal 1)
- Concourse B
- Baggage Handling System
- Loading Bridges
- Other Cost Centers (comprised of Aviation Service Area, Commercial and Industrial, and Other Buildings and Areas)
- Parking
- Stinson

Indirect costs centers include:

- Administration
- Fire and Rescue
- Access
- Central Plant
- Maintenance, Direct, and Control
- Security
- Operations

O&M Expenses for the indirect cost centers are allocated to the direct costs.

Exhibit 3 presents total O&M Expenses by category and by cost center, after allocation, projected for the period FY 2011 through FY 2016. As shown, total O&M Expenses are projected to increase from approximately $50.1 million for FY 2011 to approximately $60.3 million in FY 2016, representing a compounded annual growth rate ("CAGR") of approximately 3.8 percent. In general,

Exhibit 3
O&M EXPENSES
SAN ANTONIO AIRPORT SYSTEM
(for the Fiscal Years ending September 30)

	Projected 2011	2012	2013	2014	2015	2016
O&M Expenses by Major Object Category						
Personal Services	$27,574,340	$ 28,536,747	$ 29,533,952	$ 30,564,439	$ 31,628,288	$32,734,582
Contractual Services	10,783,951	11,207,846	11,590,771	11,996,122	12,416,672	12,849,655
Commodities/Common Services/Other	11,751,424	12,819,943	13,274,433	13,743,410	14,231,927	14,737,036
Total O&M Expenses	$ 50,109,715	$ 52,564,536	$ 54,399,156	$ 56,303,972	$ 58,276,887	$60,321,273
CAGR FY 2011-FY 2016						3.8%
Total O&M Expenses By Cost Center After Allocation of Indirect Expenses						
Airfield	$ 8,139,686	$ 8,380,419	$ 8,675,027	$ 8,977,979	$ 9,294,025	$ 9,619,400
Apron	2,896,240	2,985,393	3,091,180	3,198,922	3,310,964	3,426,983
Landside Terminal Building	10,955,873	11,657,653	12,066,959	12,490,351	12,928,723	13,382,724
Concourse A	6,271,794	6,847,713	7,087,320	7,334,997	7,591,505	7,857,152
Concourse B	5,522,848	5,666,494	5,866,435	6,073,471	6,287,749	6,509,675
Baggage Handling System	5,120,044	5,240,512	5,421,187	5,607,525	5,801,320	6,002,539
Loading Bridges	1,300,942	1,261,284	1,297,704	1,343,358	1,389,948	1,438,618
Other Cost Centers	1,245,577	1,276,901	1,321,327	1,367,720	1,414,466	1,463,300
Parking	6,776,423	7,316,633	7,575,676	7,844,412	8,121,370	8,409,896
Stinson	1,880,286	1,931,533	1,996,342	2,065,237	2,136,818	2,210,986
Total O&M Expenses	$ 50,109,714	$ 52,564,536	$ 54,399,156	$ 56,303,972	$ 58,276,887	$60,321,273
CAGR FY 2011-FY 2016						3.8%

Source: Ricondo & Associates, Inc., December 2010.
Prepared by: Ricondo & Associates, Inc.

the projections of O&M Expenses are based on the following data and factors: (1) historical trends; (2) the Department's FY 2011 budget; (3) anticipated inflationary impacts (assumed to be 3.5 percent per year); and (4) the projected cost impacts of capital projects scheduled to be completed during the forecast period. Exhibit 3 also presents a summary of projected O&M Expenses after allocation to direct cost centers.

1.6 PFC Revenues and Non-Airline Revenues

PFC Revenues may be used on a Pay-As-You-Go ("PAYGO") basis to fund capital projects or may be used to pay debt service on bonds for which proceeds were used to fund PFC-eligible projects. **Exhibit 4** presents projected PFC revenues and uses for FY 2011 through FY 2016.

Non-Airline revenues includes all revenues derived from the operation of the City's two airports, excluding PFC revenues, grant revenues, revenues pledged to the payment of special facility airport revenue bonds and revenues derived from the collection of airline rates and charges.

Exhibit 5 presents non-airline revenues for FY 2011 through FY 2016. As shown, non-airline revenues are projected at approximately $43.4 million in FY 2011 and are projected to increase to approximately $50.9 million in FY 2016. This projected increase in non-airline revenues between FY 2011 and FY 2016 represents a CAGR of 3.3 percent. In general, projections of future non-airline revenues were based on a review of historical trends, evaluation of tenant leases, the anticipated impacts of inflation, and projected growth in activity over the projection period.

1.7 Airline Revenues

Airline Revenues for SAT include terminal rental revenues, baggage handling system revenues, loading bridge revenues, apron area fees, and landing fees.

1.7.1 Terminal Rental Revenues

Each of the terminal rental rate calculations combine the cost center-specific direct and indirect O&M Expenses, O&M Reserve requirements, total debt service (net of PFC revenues) and net debt service coverage (rolling basis). This net requirement is divided by rentable square feet to determine the average terminal rental rate. The Department may offer a competitive credit to reduce any of the rates charged to the airlines.

Exhibit 6-1 presents the Landside Terminal Building Rental Rate Calculations and Revenues for FY 2011 – FY 2016. **Exhibit 6-2** presents the Concourse A Rental Rate Calculations and Revenues for FY 2011 – FY 2016. **Exhibit 6-3** presents the Concourse B Rental Rate Calculations and Revenues for FY 2011 – FY 2016.

1.7.2 Baggage Handling System Revenues

The Baggage Handling System Revenue Requirement combines the cost center-specific direct and indirect O&M Expenses, O&M Reserve requirement, total debt service (net of PFC revenues) and net debt service coverage (rolling basis). The BHS revenue requirement will be allocated to airlines on the basis of passengers. **Exhibit 7** presents the Baggage Handling System Requirement and Revenues for FY 2011 – FY 2016.

1.7.3 Loading Bridge Revenues

The City currently owns 11 of the 24 loading bridges; airlines own the remaining 13. The City is in the process of purchasing and replacing all loading bridges and expects to have all loading bridges installed and operational by the beginning of FY 2012. At that time, the City will perform all maintenance and will charge airlines for the operating and net capital costs associated with the

Exhibit 4
Calculation of Estimated PFCs and AIP Entitlements
San Antonio International Airport
San Antonio Airport System
(for the Fiscal Years ending September 30)

		Projected 2011	2012	2013	2014	2015	2016
PFC Revenue							
Enplanements	[A]	4,075,000	4,180,000	4,285,000	4,390,000	4,495,000	4,600,000
92% of Enplanements for PFC	[B] = [A]*.92	3,749,000	3,845,600	3,942,200	4,038,800	4,135,400	4,232,000
Amount to be Charged (Net)	[C]	$ 4.39	$ 4.39	$ 4.39	$ 4.39	$ 4.39	$ 4.39
Total PFC Collections	[D] = [B]*[C]	$ 16,458,110	$ 16,882,184	$ 17,306,258	$ 17,730,332	$ 18,154,406	$ 18,578,480
PLUS: Investment Earnings	[E] = [D]/2*.02	$ 164,581	$ 168,822	$ 173,063	$ 177,303	$ 181,544	$ 185,785
Adjusted PFC Revenue Potential	[F] = [D]+[E]	$ 16,622,691	$ 17,051,006	$ 17,479,321	$ 17,907,635	$ 18,335,950	$ 18,764,265

Source: InterVISTAS Consulting, LLC (Enplanement Projections), December 2010; Ricondo & Associates, Inc. (PFC Projections), December 2010.
Prepared by: Ricondo & Associates, Inc.

Exhibit 5
NON AIRLINE REVENUE
SAN ANTONIO AIRPORT SYSTEM
(for the Fiscal Years ending September 30)

	Projected 2011	2012	2013	2014	2015	2016
Airfield						
Fuel Flowage	$ 673,938	$ 687,000	$ 701,000	$ 715,000	$ 729,000	$ 744,000
Total Airfield	$ 673,938	$ 687,000	$ 701,000	$ 715,000	$ 729,000	$ 744,000
Terminal						
Food and Beverage Concessions	$ 2,845,740	$3,016,000	$ 3,138,000	$ 3,263,000	$ 3,391,000	$ 3,522,000
News and Gifts and Other Concessions	2,707,912	2,870,000	2,986,000	3,105,000	3,227,000	3,352,000
Other Terminal Revenues	680,018	684,000	698,000	712,000	726,000	741,000
Total Terminal	$ 6,233,670	$ 6,570,000	$ 6,822,000	$ 7,080,000	$ 7,344,000	$ 7,615,000
Terminal Area						
Car Rental Revenues	$ 9,398,643	$ 9,961,000	$ 10,364,000	$ 10,777,000	$ 11,200,000	$ 11,634,000
Parking Revenues	18,312,749	19,122,000	19,602,000	20,082,000	20,562,000	21,042,000
Total Terminal Area	$ 27,711,392	$ 29,083,000	$ 29,966,000	$ 30,859,000	$ 31,762,000	$ 32,676,000
General Aviation and Commercial Activity						
Aviation Service Area	$ 7,016,000	$ 7,156,000	$ 7,299,000	$ 7,445,000	$ 7,594,000	$ 7,746,000
Commercial & Industrial	1,299,292	1,325,000	1,352,000	1,379,000	1,407,000	1,435,000
Total General Aviation and Commercial Activity	$ 8,315,292	$ 8,481,000	$ 8,651,000	$ 8,824,000	$ 9,001,000	$ 9,181,000
Total San Antonio International Airport	$ 42,934,292	$ 44,821,000	$ 46,140,000	$ 47,478,000	$ 48,836,000	$ 50,216,000
Stinson	$ 314,380	$ 413,000	$ 421,000	$ 429,000	$ 438,000	$ 447,000
Investment Earnings	$ 102,581	$ 212,148	$ 222,384	$ 227,038	$ 246,943	$ 257,453
Total Non Airline Revenue	$ 43,351,253	$ 45,446,148	$ 46,783,384	$ 48,134,038	$ 49,520,943	$ 50,920,453
CAGR FY 2011-FY 2016						3.3%

Source: Ricondo & Associates, Inc., December 2010.
Prepared by: Ricondo & Associates, Inc.

Exhibit 6-1
TERMINAL RENTAL RATE CALCULATIONS
LANDSIDE TERMINAL BUILDING
SAN ANTONIO AIRPORT SYSTEM
(for the Fiscal Years ending September 30)

	Projected 2011	2012	2013	2014	2015	2016
Landside Terminal Building Revenue Requirement						
O&M Expenses	$ 10,955,873	$ 11,657,653	$ 12,066,959	$ 12,490,351	$ 12,928,723	$ 13,382,724
O&M Expense Reserve Requirement	175,445	102,326	105,848	109,593	113,500	118,017
Airline Vacant Space Expense	-	-	-	-	-	-
Debt Service	5,405,084	5,221,363	5,806,968	4,667,989	4,249,290	4,250,120
Debt Service Coverage Requirement (.25x)	1,351,271	1,305,341	1,451,742	1,166,997	1,062,322	1,062,530
Total Landside Terminal Building Revenue Requirement	$ 17,887,674	$ 18,286,684	$ 19,431,516	$ 18,434,930	$ 18,353,835	$ 18,813,392
Landside Terminal Building Square Feet						
Airline Preferential Space	38,976	38,976	38,976	38,976	38,976	38,976
Airline Joint Use Space	67,741	67,741	67,741	67,741	67,741	67,741
Other Rentable Space	38,955	38,955	38,955	38,955	38,955	38,955
Total Landside Terminal Building Rentable Space	145,672	145,672	145,672	145,672	145,672	145,672
Airline Percentage - Rentable Space	73.3%	73.3%	73.3%	73.3%	73.3%	73.3%
Airline Share Landside Terminal Building Requirement	$ 13,104,227	$ 13,396,535	$ 14,235,221	$ 13,505,138	$ 13,445,729	$ 13,782,393
Less: Prior Year Debt Service Coverage	-	(989,920)	(956,272)	(1,063,523)	(854,924)	(778,241)
Less: Competitive Credit	-	-	-	(596,701)	(544,558)	(3,238,401)
Total Landside Terminal Building Airline Rental Revenues	$ 13,104,227	$ 12,406,615	$ 13,278,949	$ 11,844,914	$ 12,046,247	$ 9,765,751
Average Airline Rental Rate (per square foot)	$ 122.79	$ 116.26	$ 124.43	$ 110.99	$ 112.88	$ 91.51
Airline Rented Space	106,717	106,717	106,717	106,717	106,717	106,717
Total Landside Terminal Building Airline Rental Revenues	$ 13,104,227	$ 12,406,615	$ 13,278,949	$ 11,844,914	$ 12,046,247	$ 9,765,751
Differentiated Landside Terminal Building Rental Rates						
Airline Preferential and Joint Use Terminal Rental Rate	$ 136.31	$ 129.06	$ 138.13	$ 123.21	$ 125.31	$ 101.59
Tug Lane Terminal Rental Rate	$ 81.79	$ 77.43	$ 82.88	$ 73.93	$ 75.18	$ 60.95
Airline Preferential and Joint Use Space						
Airline Preferential Airline and Joint Use Terminal Rental Rate (per square foot)	$ 136.31	$ 129.06	$ 138.13	$ 123.21	$ 125.31	$ 101.59
Airline Preferential and Joint Use Rented Space (square feet)	80,257	80,257	80,257	80,257	80,257	80,257
Airline Preferential and Joint Use Space Rental Revenues	$ 10,940,113	$ 10,357,710	$ 11,085,981	$ 9,888,771	$ 10,056,855	$ 8,152,975
Airline Tug Lane Space						
Airline Tug Lane Terminal Rental Rate (per square foot) [1/]	$ 81.79	$ 77.43	$ 82.88	$ 73.93	$ 75.18	$ 60.95
Airline Tug Lane Space (square feet)	26,460	26,460	26,460	26,460	26,460	26,460
Airline Tug Lane Space Rental Revenues	$ 2,164,113	$ 2,048,905	$ 2,192,968	$ 1,956,143	$ 1,989,392	$ 1,612,777
Total Landside Terminal Building Airline Rental Revenues	$ 13,104,227	$ 12,406,615	$ 13,278,949	$ 11,844,914	$ 12,046,247	$ 9,765,751

Note:
1/ 60 percent of Airline Preferential and Joint Use Terminal Rental Rate.

Sources: City of San Antonio, Department of Aviation and Ricondo & Associates, Inc., December 2010.
Prepared by: Ricondo & Associates, Inc.

Exhibit 6-2
TERMINAL RENTAL RATE CALCULATIONS
CONCOURSE A
SAN ANTONIO AIRPORT SYSTEM
(for the Fiscal Years ending September 30)

	Projected 2011	2012	2013	2014	2015	2016
Concourse A Revenue Requirement						
O&M Expenses	$ 6,271,794	$ 6,847,713	$ 7,087,320	$ 7,334,997	$ 7,591,505	$ 7,857,152
O&M Expense Reserve Requirement	143,980	59,902	61,919	64,127	66,412	69,041
Airline Vacant Space Expense	-	-	-	-	-	-
Debt Service	3,465,017	3,279,155	3,815,636	2,373,709	1,857,627	1,857,550
Debt Service Coverage Requirement (.25x)	866,254	819,789	953,909	593,427	464,407	464,388
Less: Excess PFC Revenues	(31,274)	(53,971)	(1,445,562)	(2,023,997)	(2,023,282)	(2,022,315)
Total Concourse A Revenue Requirement	$ 10,715,771	$ 10,952,588	$ 10,473,222	$ 8,342,263	$ 7,956,669	$ 8,225,815
Concourse A Square Feet						
Airline Preferential Space	53,477	53,477	53,477	53,477	53,477	53,477
Airline Joint Use Space	-	-	-	-	-	-
Other Rentable Space	45,250	45,250	45,250	45,250	45,250	45,250
Total Concourse A Rentable Space	98,727	98,727	98,727	98,727	98,727	98,727
Airline Percentage - Rentable Space	54.2%	54.2%	54.2%	54.2%	54.2%	54.2%
Airline Share Concourse A Building Requirement	$ 5,804,362	$ 5,932,638	$ 5,672,982	$ 4,518,715	$ 4,309,852	$ 4,455,639
Less: Prior Year Debt Service Coverage	-	(469,220)	(444,051)	(516,699)	(321,439)	(251,553)
Less: Competitive Credit	-	(1,895,187)	(1,449,155)	(824,016)	(752,009)	(809,600)
Total Concourse A Building Airline Rental Revenues	$ 5,804,362	$ 3,568,231	$ 3,779,776	$ 3,178,000	$ 3,236,404	$ 3,394,486
Average Airline Rental Rate (per square foot)	$ 108.54	$ 66.72	$ 70.68	$ 59.43	$ 60.52	$ 63.48
Airline Preferential Rented Space (square feet)	53,477	53,477	53,477	53,477	53,477	53,477
Total Concourse A Airline Rental Revenues	$ 5,804,362	$ 3,568,231	$ 3,779,776	$ 3,178,000	$ 3,236,404	$ 3,394,486

Sources: City of San Antonio, Department of Aviation and Ricondo & Associates, Inc., December 2010.
Prepared by: Ricondo & Associates, Inc.

Exhibit 6-3
TERMINAL RENTAL RATE CALCULATIONS
CONCOURSE B
SAN ANTONIO AIRPORT SYSTEM
(for the Fiscal Years ending September 30)

	Projected 2011	2012	2013	2014	2015	2016
Concourse B Revenue Requirement						
O&M Expenses	$ 5,522,848	$ 5,666,494	$ 5,866,435	$ 6,073,471	$ 6,287,749	$ 6,509,675
O&M Expense Reserve Requirement	35,912	49,985	51,759	53,570	55,482	57,705
Airline Vacant Space Expense	-	-	-	-	-	-
Debt Service	2,277,353	2,282,078	2,334,508	2,713,257	2,835,619	2,836,705
Debt Service Coverage Requirement (.25x)	569,338	570,520	583,627	678,314	708,905	709,176
Less: Excess PFC Revenues	(29,287)	(50,206)	(50,206)	(68,056)	(68,107)	(68,115)
Total Concourse B Revenue Requirement	$ 8,376,164	$ 8,518,871	$ 8,786,123	$ 9,450,556	$ 9,819,648	$ 10,045,146
Concourse B Square Feet						
Airline Preferential Space	27,407	27,407	27,407	27,407	27,407	27,407
Airline Joint Use Space	-	-	-	-	-	-
Other Rentable Space	22,909	22,909	22,909	22,909	22,909	22,909
Total Concourse B Rentable Space	50,316	50,316	50,316	50,316	50,316	50,316
Airline Percentage - Rentable Space	54.5%	54.5%	54.5%	54.5%	54.5%	54.5%
Airline Share Concourse B Building Requirement	$ 4,562,476	$ 4,640,208	$ 4,785,779	$ 5,147,694	$ 5,348,738	$ 5,471,566
Less: Prior Year Debt Service Coverage	-	(310,117)	(310,761)	(317,900)	(369,476)	(386,139)
Less: Competitive Credit	-	(2,227,300)	(2,263,811)	(2,926,997)	(3,046,532)	(3,071,681)
Less: Terminal Project Start Up Adjustment	(1,500,000)	$201,770	$201,770	$201,770	$201,770	$0
Total Concourse B Building Airline Rental Revenues	$ 3,062,476	$ 2,304,561	$ 2,412,978	$ 2,104,568	$ 2,134,500	$ 2,013,747
Average Airline Rental Rate (per square foot)	$ 111.74	$ 84.09	$ 88.04	$ 76.79	$ 77.88	$ 73.48
Airline Preferential Rented Space (square feet)	27,407	27,407	27,407	27,407	27,407	27,407
Total Concourse B Airline Rental Revenues	$ 3,062,476	$ 2,304,561	$ 2,412,978	$ 2,104,568	$ 2,134,500	$ 2,013,747

Sources: City of San Antonio, Department of Aviation and Ricondo & Associates, Inc., December 2010.
Prepared by: Ricondo & Associates, Inc.

Exhibit 7
BAGGAGE HANDLING SYSTEM REQUIREMENT
SAN ANTONIO AIRPORT SYSTEM
(for the Fiscal Years ending September 30)

	Projected 2011	2012	2013	2014	2015	2016
Baggage Handling System Revenue Requirement						
O&M Expenses	$ 5,120,044	$ 5,240,512	$ 5,421,187	$ 5,607,525	$ 5,801,320	$ 6,002,539
O&M Expense Reserve Requirement	30,117	45,169	46,584	48,449	50,305	52,181
Debt Service	1,596,814	1,604,070	1,628,707	1,690,020	1,705,108	1,704,937
Debt Service Coverage Requirement (.25x)	399,203	401,017	407,177	422,505	426,277	426,234
Less: Prior Year Debt Service Coverage	-	(399,203)	(401,017)	(407,177)	(422,505)	(426,277)
Less: Excess PFC Revenues	(29,287)	(50,206)	(50,206)	(68,056)	(68,107)	(68,115)
Total Baggage Handling System Revenue Requirement [1/]	$ 7,116,892	$ 6,841,358	$ 7,052,431	$ 7,293,266	$ 7,492,397	$ 7,691,500

Note:
1/ Prorated based on the 20/80 joint use formula.

Sources: City of San Antonio, Department of Aviation and Ricondo & Associates, Inc., December 2010.
Prepared by: Ricondo & Associates, Inc.

loading bridges. Prior to the replacement, airlines will be charged for utilities for all airline-owned loading bridges.

The Loading Bridge Revenue Requirement for City-owned loading bridges combines the cost center-specific direct O&M Expenses, O&M Reserve requirement, total debt service (net of PFC revenues) and net debt service coverage (rolling basis). Expenses consist of maintenance and utility for the loading bridges and no indirect expenses are included in this calculation. **Exhibit 8** presents the Loading Bridge Requirement and Revenues for FY 2011 – FY 2016.

1.7.4 Apron Area Revenues

The Apron Area Revenue Requirement combines the cost center-specific direct O&M Expenses, O&M Reserve requirement, total debt service and net debt service coverage (rolling basis). The Apron Area Requirement is divided by linear foot to calculate the rate charged to airlines. Currently, all apron area is assumed to be leased. **Exhibit 9** presents the Apron Requirement and Revenues for FY 2011 – FY 2016.

1.7.5 Airline Landing Fee Revenues

The landing fee calculation combines Airfield cost center-specific direct and indirect O&M Expenses, O&M Reserve requirement, total debt service and net debt service coverage less Airfield non-airline revenues. This net requirement is divided by total airline landed weight to determine the landing fee rate.

Exhibit 10 presents the Landing Fee Rate Calculation and Revenues for FY 2011 – FY 2016.

1.8 Passenger Airline Cost Per Enplanement

Exhibit 11 presents projected airline payments for landing fees, terminal rents, and other airline fees and the domestic passenger airline cost per enplanement and average passenger airline cost per enplanement.

As shown, the average airline cost per enplanement at SAT over the period FY 2011 through FY 2016 is projected to range from a high of $9.67 in FY 2011 to a low of $8.24 in FY 2016.

Airline payments (i.e., costs) per enplaned passenger ("CPE"), is a standard, although imperfect, benchmark measure of the airline revenues such as landing fees and terminal rentals paid by airlines throughout the airport industry. CPE ranges widely among individual airports, primarily reflecting the development cycle at each airport, the rate-making methodology in effect, who financed the facilities (i.e., the airport operator or the airline), and traffic trends.

The projected passenger airline payments per enplaned passenger are comparable to other medium-hub airports where major expansion and improvement projects have recently been completed or are planned, however, the reasonableness of airline rentals, fees, and charges will ultimately be reflected by the individual airlines via the level of service provided at SAT to meet demand in the San Antonio market.

1.9 Application of Revenues, Flow of Funds and Debt Service Coverage

Exhibit 12 presents Gross Revenues, including airline revenues, cargo landing fees, non-airline revenues, and other deposits and credits allowable per the terms of the Bond Ordinances, are projected to increase from approximately $89.4 million in FY 2011 to approximately $99.6 million in FY 2016, representing a CAGR of approximately 2.2 percent. **Exhibit 13** illustrates the flow of funds and presents projection of estimated fund balances.

Exhibit 8
LOADING BRIDGE REQUIREMENT
SAN ANTONIO AIRPORT SYSTEM
(for the Fiscal Years ending September 30)

	Projected 2011	2012	2013	2014	2015	2016
Loading Bridge Revenue Requirement - City Owned						
O&M Expenses - Maintenance [1/]	$ 218,846	$ 218,846	$ 218,846	$227,000	$235,000	$243,000
O&M Expenses - Utilities	430,833	973,000	1,007,000	1,042,000	1,078,000	1,116,000
Debt Service	226,490	226,372	226,435	226,481	226,499	226,481
Debt Service Coverage Requirement (.25x)	56,623	56,593	56,609	56,620	56,625	56,620
Less: Excess PFC Revenues	(226,490)	(226,372)	(226,435)	(226,481)	(226,499)	(226,481)
Less: Debt Service and Coverage Credit	(56,623)	(56,593)	(56,609)	(56,620)	(56,625)	(56,620)
Operating Expense Reserve Requirement	135,542	8,500	10,789	11,000	11,500	12,000
Total Loading Bridge Revenue Requirement	$785,221	$1,200,346	$1,236,635	$1,280,000	$1,324,500	$1,371,000
City Owned Loading Bridges	11	24	24	24	24	24
Average Loading Bridge Requirement Per Bridge (Annual)	$ 71,384	$ 50,014	$ 51,526	$ 53,333	$ 55,188	$ 57,125
Loading Bridges Rented	11	24	24	24	24	24
Total City Owned Loading Bridge Revenues	$ 785,221	$ 1,200,346	$ 1,236,635	$ 1,280,000	$ 1,324,500	$ 1,371,000
Loading Bridge Revenue Requirement - Airline Owned						
Operating Expenses - Utilities	$ 509,167	$ -	$ -	$ -	$ -	$ -
Total Loading Bridge Revenue Requirement	$ 509,167	$ -	$ -	$ -	$ -	$ -
Airline Owned Loading Bridges	13	-	-	-	-	-
Average Loading Bridge Requirement Per Bridge (Annual)	$ 39,167	$ -	$ -	$ -	$ -	$ -
Loading Bridges Rented	13	-	-	-	-	-
Total Airline Owned Loading Bridge Revenues	$ 509,167	$ -	$ -	$ -	$ -	$ -

Note:
1/ Amounts for FY 2011-FY 2013 per contract estimate dated 9/17/2010.

Sources: City of San Antonio, Department of Aviation and Ricondo & Associates, Inc., December 2010.
Prepared by: Ricondo & Associates, Inc.

Exhibit 9
APRON REQUIREMENT
SAN ANTONIO AIRPORT SYSTEM
(for the Fiscal Years ending September 30)

	Projected 2011	2012	2013	2014	2015	2016
Apron Area Revenue Requirement						
O&M Expenses	$ 2,896,240	$ 2,985,393	$ 3,091,180	$ 3,198,922	$ 3,310,964	$ 3,426,983
O&M Expense Reserve Requirement	22,288	26,447	26,935	28,011	29,005	30,025
Debt Service	347,115	301,290	290,676	7,579	9,346	9,355
Debt Service Coverage Requirement (.25x)	86,779	75,322	72,669	1,895	2,336	2,339
Less: Prior Year Debt Service Coverage	-	(86,779)	(75,322)	(72,669)	(1,895)	(2,336)
Total Apron Revenue Requirement	$ 3,352,421	$ 3,301,673	$ 3,406,138	$ 3,163,738	$ 3,349,757	$ 3,466,366
Apron Area Linear Feet	3,150	3,150	3,150	3,150	3,150	3,150
Apron Area Revenue Requirement (per linear foot)	$ 1,064	$ 1,048	$ 1,081	$ 1,004	$ 1,063	$ 1,100
Apron Area Linear Feet	3,150	3,150	3,150	3,150	3,150	3,150
Total Apron Area Revenues	$ 3,352,421	$ 3,301,673	$ 3,406,138	$ 3,163,738	$ 3,349,757	$ 3,466,366

Sources: City of San Antonio, Department of Aviation and Ricondo & Associates, Inc., December 2010.
Prepared by: Ricondo & Associates, Inc.

Exhibit 10
LANDING FEE RATE CALCULATION
SAN ANTONIO AIRPORT SYSTEM
(for the Fiscal Years ending September 30)

	Projected 2011	2012	2013	2014	2015	2016
Airfield Revenue Requirement						
O&M Expenses	$ 8,139,686	$ 8,380,419	$ 8,675,027	$ 8,977,979	$ 9,294,025	$ 9,619,400
O&M Expense Reserve Requirement	60,183	73,652	75,738	79,012	81,344	84,559
Debt Service	1,478,327	1,461,703	1,484,536	1,841,175	1,986,000	1,986,606
Debt Service Coverage Requirement (.25x)	369,582	365,426	371,134	460,294	496,500	496,652
Less: Prior Year Debt Service Coverage	-	(369,582)	(365,426)	(371,134)	(460,294)	(496,500)
Less: Excess PFC Revenues	(562,276)	(604,286)	(604,428)	(640,598)	(640,742)	(640,718)
Total Landing Fee Requirement	$ 9,485,502	$ 9,307,332	$ 9,636,581	$ 10,346,727	$ 10,756,833	$ 11,049,999
Airfield Revenue Credits						
Fuel Flowage Revenue	$ 673,938	$ 687,000	$ 701,000	$ 715,000	$ 729,000	$ 744,000
RON Parking	573,000	584,000	596,000	608,000	620,000	-
Total Airfield Revenue Credits	$ 1,246,938	$ 1,271,000	$ 1,297,000	$ 1,323,000	$ 1,349,000	$ 744,000
Net Airfield Requirement	$ 8,238,564	$ 8,036,332	$ 8,339,581	$ 9,023,727	$ 9,407,833	$ 10,305,999
Total Landed Weight	5,630,000	5,760,000	5,890,000	6,020,000	6,150,000	6,280,000
Landing Fee Rate	$ 1.46	$ 1.40	$ 1.42	$ 1.50	$ 1.53	$ 1.64
Landed Weight						
Domestic Passenger Airline Landing Weight	4,774,379	4,884,622	4,994,865	5,105,109	5,215,352	5,325,595
Cargo Landing Weight	740,521	757,620	774,719	791,818	808,917	826,016
Foreign Flag Landing Weight	115,100	117,758	120,416	123,073	125,731	128,389
Total Airline Landed Weight	5,630,000	5,760,000	5,890,000	6,020,000	6,150,000	6,280,000
Airline Landing Fee Revenues						
Domestic Passenger Airline Landing Fees	$ 6,986,506	$ 6,815,008	$ 7,072,171	$ 7,652,343	$ 7,978,075	$ 8,739,742
Cargo Landing Fees	1,083,629	1,057,029	1,096,915	1,186,902	1,237,424	1,355,561
Foreign Flag Landing Fees	168,430	164,295	170,495	184,482	192,334	210,696
Total Airline Landing Fee Revenues	$ 8,238,564	$ 8,036,332	$ 8,339,581	$ 9,023,727	$ 9,407,833	$ 10,305,999

Sources: City of San Antonio, Department of Aviation and Ricondo & Associates, Inc., December 2010.
Prepared by: Ricondo & Associates, Inc.

Exhibit 11
AIRLINE COST PER ENPLANEMENT
SAN ANTONIO AIRPORT SYSTEM
(for the Fiscal Years ending September 30)

	Projected 2011	2012	2013	2014	2015	2016
Domestic Passenger Airline Revenues						
Domestic Passenger Airline Landing Fees	$ 6,986,506	$ 6,815,008	$ 7,072,171	$ 7,652,343	$ 7,978,075	$ 8,739,742
Apron Fees	3,352,421	3,301,673	3,406,138	3,163,738	3,349,757	3,466,366
Terminal Building Rentals	-	-	-	-	-	-
Landside Terminal Building Rentals	13,104,227	12,406,615	13,278,949	11,844,914	12,046,247	9,765,751
Concourse A Rentals	5,804,362	3,568,231	3,779,776	3,178,000	3,236,404	3,394,486
Concourse B Rentals	3,062,476	2,304,561	2,412,978	2,104,568	2,134,500	2,013,747
Baggage Handling System	7,116,892	6,841,358	7,052,431	7,293,266	7,492,397	7,691,500
Loading Bridges - City Owned	785,221	1,200,346	1,236,635	1,280,000	1,324,500	1,371,000
Loading Bridges - Airline Owned	509,167	-	-	-	-	-
RON Parking	573,000	584,000	596,000	608,000	620,000	632,000
Total Domestic Passenger Airline Revenues before 2010 credit	$ 41,294,271	$ 37,021,792	$ 38,835,077	$ 37,124,829	$ 38,181,880	$ 37,074,591
Credit for 2010 from prior Airline Agreement	$ (2,600,000)					
Total Domestic Passenger Airline Revenues	$ 38,694,271					
Total Domestic Enplaned Passengers	4,003,436	4,106,592	4,209,748	4,312,904	4,416,060	4,519,216
Average Domestic Passenger Airline Cost Per Enplaned Passenger	$ 9.67	$ 9.02	$ 9.23	$ 8.61	$ 8.65	$ 8.20
Annual Change	72.0%	-6.7%	2.3%	-6.7%	0.4%	-5.1%
Consolidated Airline Revenues						
Domestic Passenger Airline Revenues	$ 41,294,271	$ 37,021,792	$ 38,835,077	$ 37,124,829	$ 38,181,880	$ 37,074,591
FIS Use Fees	531,000	556,000	581,000	600,000	619,000	619,000
Foreign Flag Landing Fees	168,430	164,295	170,495	184,482	192,334	210,696
Total Consolidated Airline Revenues before 2010 credit	$ 41,993,701	$ 37,742,087	$ 39,586,572	$ 37,909,311	$ 38,993,214	$ 37,904,288
Credit for 2010 from prior Airline Agreement	(2,600,000)					
Total Consolidated Airline Revenues after 2010 credit	39,393,701					
Total Enplaned Passengers	4,075,000	4,180,000	4,285,000	4,390,000	4,495,000	4,600,000
Average Airline Cost Per Enplaned Passenger	$ 9.67	$ 9.03	$ 9.24	$ 8.64	$ 8.67	$ 8.24
Annual Change	70.1%	-6.6%	2.3%	-6.5%	0.5%	-5.0%

Note:
1/ A new cost center structure was established in FY 2011. FY 2010 Terminal Building Rentals are not presented by the new cost center structure in this exhibit.

Sources: Ricondo & Associates, Inc., December 2010.
Prepared by: Ricondo & Associates, Inc.

Exhibit 12
APPLICATION OF REVENUES
SAN ANTONIO AIRPORT SYSTEM
(for the Fiscal Years ending September 30)

	Projected 2011	2012	2013	2014	2015	2016
Revenues						
Total Airline Revenues	$ 41,993,701	$ 37,742,087	$ 39,586,572	$ 37,909,311	$ 38,993,214	$ 37,904,288
Cargo Landing Fees	1,083,629	1,057,029	1,096,915	1,186,902	1,237,424	1,355,561
Non Airline Revenue - SAT	42,934,292	44,821,000	46,140,000	47,478,000	48,836,000	50,216,000
Stinson Revenues	314,380	413,000	421,000	429,000	438,000	447,000
Interest and Other Income	102,581	212,148	222,384	227,038	246,943	257,453
Prior Period Debt Service Coverage Deposit	-	2,624,821	2,552,849	2,749,102	2,430,533	2,341,046
Prior Period Competitive Credit	3,001,683	4,122,487	3,712,966	4,347,714	4,343,099	7,119,682
Gross Revenues	$ 89,430,266	$ 90,992,572	$ 93,732,687	$ 94,327,067	$ 96,525,212	$ 99,641,029
Application of Gross Revenues						
Bond Fund						
Non-PFC Supported Debt Service	$ 23,372,680	$ 22,739,365	$ 22,532,511	$ 21,260,636	$ 18,509,301	$ 18,520,292
Debt Service Reserve Fund						
Debt Service Reserve Deposit	$ -	$ -	$ -	$ -	$ -	$ -
O&M Account						
O&M Expenses	$ 50,109,714	$ 52,564,536	$ 54,399,156	$ 56,303,972	$ 58,276,887	$ 60,321,273
O&M Expense Reserve Requirement	613,706	458,655	476,204	493,229	511,097	530,521
Subordinate Securities Fund	$ -	$ -	$ -	$ -	$ -	$ -
Capital Improvement Fund						
Debt Service Coverage Deposit	$ 2,624,821	$ 2,552,849	$ 2,749,102	$ 2,430,533	$ 2,341,046	$ 2,341,446
Capital Improvement Factor	8,586,858	8,964,200	9,228,000	9,495,600	9,767,200	10,043,200
Capital Improvements and/or Competitive Credit	4,122,487	3,712,966	4,347,714	4,343,099	7,119,682	7,884,296
Total Application of Gross Revenues	$ 89,430,266	$ 90,992,572	$ 93,732,687	$ 94,327,067	$ 96,525,212	$ 99,641,029

Sources: Ricondo & Associates, Inc., December 2010.
Prepared by: Ricondo & Associates, Inc.

Exhibit 13
FLOW OF FUNDS AND PROJECTED FUND BALANCES
SAN ANTONIO AIRPORT SYSTEM
(for the Fiscal Years ending September 30)

	Projected 2011	2012	2013	2014	2015	2016
Revenue Fund						
Beginning Balance	$ -	$ -	$ -	$ -	$ -	$ -
Add: Gross Revenues	89,430,266	90,992,572	93,732,687	94,327,067	96,525,212	99,641,029
Less: Deposit to Bond Fund	(23,372,680)	(22,739,365)	(22,532,511)	(21,260,636)	(18,509,301)	(18,520,292)
Less: Deposit to Debt Service Reserve Fund	-	-	-	-	-	-
Less: Deposit to Bond Reserve Fund	-	-	-	-	-	-
Less: Deposit to O&M Account - O&M Expenses	(50,109,714)	(52,564,536)	(54,399,156)	(56,303,972)	(58,276,887)	(60,321,273)
Less: Deposit to O&M Account - O&M Reserve	(613,706)	(458,655)	(476,204)	(493,229)	(511,097)	(530,521)
Less: Deposit to Subordinate Securities Fund	-	-	-	-	-	-
Less: Deposit to Capital Improvement Fund	(15,334,166)	(15,230,015)	(16,324,816)	(16,269,231)	(19,227,928)	(20,268,942)
Ending Balance	$ -	$ -	$ -	$ -	$ -	$ -
Bond Fund						
Beginning Balance	$ -	$ -	$ -	$ -	$ -	$ -
Add: Deposit from Revenue Fund	23,372,680	22,739,365	22,532,511	21,260,636	18,509,301	18,520,292
Add; Excess PFC Revenues to Pay GARB Debt Service	878,614	985,042	2,376,838	3,027,188	3,026,737	3,025,745
Less: Non PFC Supported Debt Service	(24,251,294)	(23,724,407)	(24,909,349)	(24,287,824)	(21,536,038)	(21,546,037)
Ending Balance	$ -	$ -	$ -	$ -	$ -	$ -
Debt Service Reserve Account						
Beginning Balance	$ -	$ -	$ -	$ -	$ -	$ -
Add: Deposit from Revenue Fund	-	-	-	-	-	-
Less:	-	-	-	-	-	-
Ending Balance	$ -	$ -	$ -	$ -	$ -	$ -
O&M Account						
Beginning Balance	$ 12,527,429	$ 13,141,134	$ 13,599,789	$ 14,075,993	$ 14,569,222	$ 15,080,319
Less: Deposit to O&M Account - O&M Expenses	50,109,714	52,564,536	54,399,156	56,303,972	58,276,887	60,321,273
Less: Deposit to O&M Account - O&M Reserve	613,706	458,655	476,204	493,229	511,097	530,521
Less: O&M Expenses	(50,109,714)	(52,564,536)	(54,399,156)	(56,303,972)	(58,276,887)	(60,321,273)
Ending Balance	$ 13,141,134	$ 13,599,789	$ 14,075,993	$ 14,569,222	$ 15,080,319	$ 15,610,840
Subordinate Securities Fund						
Beginning Balance	$ -	$ -	$ -	$ -	$ -	$ -
Add: Deposit from Revenue Fund	-	-	-	-	-	-
Ending Balance	$ -	$ -	$ -	$ -	$ -	$ -
Capital Improvement Fund						
Beginning Balance	$9,859,945	$ 16,613,000	$ 24,813,000	$ 32,966,000	$ 40,862,000	$ 32,493,000
Add: Deposit from Revenue Fund	15,334,166	15,230,015	16,324,816	16,269,231	19,227,928	20,268,942
Less: Debt Service Coverage Deposit	(2,624,821)	(2,552,849)	(2,749,102)	(2,430,533)	(2,341,046)	(2,341,446)
Less: Capital Improvement Appropriation	(1,833,962)	(764,000)	(1,075,000)	(1,600,000)	(18,136,000)	(4,511,065)
Less: Capital Improvements and/or Competitive Credit	(4,122,487)	(3,712,966)	(4,347,714)	(4,343,099)	(7,119,682)	(7,884,296)
Ending Balance	$ 16,613,000	$ 24,813,000	$ 32,966,000	$ 40,862,000	$ 32,493,000	$ 38,025,000

Sources: Ricondo & Associates, Inc., December 2010.
Prepared by: Ricondo & Associates, Inc.

The City's ability to satisfy the Rate Covenant contained in the GARB Ordinances is presented in **Exhibit 14.** The Rate Covenant requires the City to generate Gross Revenues in each Fiscal Year at least sufficient: (1) to pay all Operation and Maintenance Expenses during each Fiscal Year, and also (2) to provide an amount equal to 1.25 times the annual debt service requirements. As shown, the requirement is met in each of the years.

The City's ability to satisfy the Covenant to Budget PFC Debt Service Coverage contained in the Master PFC Bond Ordinance is presented in **Exhibit 15.** The Master PFC Bond Ordinance requires the City to generate PFC Revenues at least equal to 1.25 times the annual debt service requirements. As shown, the requirement is met in each of the years.

1.10 Feasibility of Short-Term PDP

The feasibility of a Master Plan is determined by the ability to undertake such capital projects while maintaining in reasonable levels of airline rates and charges including overall cost per enplaned passenger; achieve or exceed minimum coverage requirements as dictated by the airport sponsor's bond ordinance and the ability to generate acceptable cash levels. As presented in this analysis, undertaking the 2010 Capital Program and the short-term PDP is projected to be feasible. Short-term PDP projects not included in the 2010 Capital will only be undertaken based on circumstances that would ensure those projects are feasible as described above. The ultimate funding plan for those projects in the short-term PDP will be dependent on a number of factors including, but not necessarily limited to; actual SAT activity levels, refined project phasing and project cost data, potential changes to the AIP and/or PFC program, and future Department funding amounts. While it is impossible to estimate the impact that changes to any of these factors may have on the future feasibility of the short-term PDP, the analysis and underlying assumptions used in this analysis illustrate the overall feasibility of the plan and identify potential funding strategies to be used by the City.

1.11 Intermediate and Long-Term PDP

Due to uncertainties in activity and financial projects beyond the initial five-year projection period, analysis of the projects included in the intermediate- and long-term PDP was evaluated at a higher level than the short-term PDP. As described previously, the actual implementation schedule for the various projects identified in the PDP will be defined by development triggers and demand growth. As those intermediate- and long-term projects move into the short-term planning horizon (defined as within five years), the Department will evaluate each project to identify a feasible funding plan. This Master Plan assumes that funding sources such as those described previously will continue to be available to fund future eligible projects.

The intermediate-term is defined as 6-10 years from completion of the Master Plan and includes projects totaling $397.3 million, escalated dollars. The long-term implementation plan is defined as 11-20 years from completion of the Master Plan and includes projects totaling $1.3 billion, escalated dollars.

1.12 Summary

Based on analyses of projected activity at SAT, in addition to projected revenues and expenses, and the Short-Term Projects for FY 2010 through FY 2016, it appears that the City has adequate resources to meet future demand. The City has access to various sources of funding through a mix of FAA funding, TSA grants, State funding, PFC and CFC revenues, Airport System funds, and Bonds. The capital projects recommended in the Master Plan appear to be financially feasible and the City can reasonably expect to implement these projects. The airline rates and overall airline cost per

Exhibit 14
GARB COVERAGE CALCULATIONS
SAN ANTONIO AIRPORT SYSTEM
(for the Fiscal Years ending September 30)

		Projected 2011	2012	2013	2014	2015	2016
Non PFC Supported Bond Debt Service Coverage							
Gross Revenues	[A]	$ 89,430,266	$ 90,992,572	$ 93,732,687	$ 94,327,067	$ 96,525,212	$ 99,641,029
Total O&M Expenses		$ (50,109,714)	$ (52,564,536)	$ (54,399,156)	$ (56,303,972)	$ (58,276,887)	$ (60,321,273)
Adjustment: Capital Outlay (57GL)		287,398	212,943	212,943	212,943	212,943	212,943
Net O&M Expense	[B]	$ (49,822,316)	$ (52,351,593)	$ (54,186,213)	$ (56,091,029)	$ (58,063,944)	$ (60,108,330)
Net Revenues	[C]=[A]+[B]	$ 39,607,950	$ 38,640,979	$ 39,546,474	$ 38,236,039	$ 38,461,269	$ 39,532,699
Less: Prior Period Debt Service Coverage Deposit	[D]	$ -	$ (2,624,821)	$ (2,552,849)	$ (2,749,102)	$ (2,430,533)	$ (2,341,046)
Less: Prior Period Competitive Credit	[E]	(3,001,683)	(4,122,487)	(3,712,966)	(4,347,714)	(4,343,099)	(7,119,682)
Net Revenues Excluding Debt Service Coverage Deposit and Competitive Credit	[F]=[C]+[D]+[E]	$ 36,606,266	$ 31,893,671	$ 33,280,659	$ 31,139,222	$ 31,687,637	$ 30,071,971
Non PFC Supported Bond Debt Service	[G]	$ 24,251,294	$ 23,724,407	$ 24,909,349	$ 24,287,824	$ 21,536,038	$ 21,546,037
Less: Non PFC Supported Debt Service Paid with PFCs	[H]	(878,614)	(985,042)	(2,376,838)	(3,027,188)	(3,026,737)	(3,025,745)
Net Non PFC Supported Bond Debt Service	[I]=[G]+[H]	$ 23,372,680	$ 22,739,365	$ 22,532,511	$ 21,260,636	$ 18,509,301	$ 18,520,292
Non PFC Supported Bond Debt Service Coverage Ratios							
Gross Revenue Test	[A]/[I]	3.83	4.00	4.16	4.44	5.21	5.38
Debt Service Coverage Test (per Master GARB Ordinance)	**[C]/[I]**	**1.69**	**1.70**	**1.76**	**1.80**	**2.08**	**2.13**
Additional Bonds Test: Based on Net Revenues and Total Non PFC Supported Debt Service	[C]/[G]	1.63	1.63	1.59	1.57	1.79	1.83

Sources: Ricondo & Associates, Inc., December 2010.
Prepared by: Ricondo & Associates, Inc.

Exhibit 15
PFC BONDS DEBT SERVICE COVERAGE CALCULATIONS
SAN ANTONIO AIRPORT SYSTEM
(for the Fiscal Years ending September 30)

		Projected 2011	2012	2013	2014	2015	2016
Total PFC Collections (net of admin. Fee)		$ 16,458,110	$ 16,882,184	$ 17,306,258	$ 17,730,332	$ 18,154,406	$ 18,578,480
Unused PFCs from Prior Year (net of encumbered amounts)		$ 12,000,000	$ 12,116,496	$ 10,539,677	$ 8,471,543	$ 7,191,403	$ 9,333,579
Investment Earnings (PFC Fund)		164,581	168,822	173,063	177,303	181,544	185,785
Cumulative Available PFC Funds	[A]	$ 28,622,691	$ 29,167,502	$ 28,018,998	$ 26,379,178	$ 25,527,353	$ 28,097,844
Less: PFC PAYGO - Appropriated	[B]	$ (3,000,000)	$ (4,484,383)	$ (4,013,954)	$ (3,000,000)	$ -	$ (375,000)
PFC Funds Net of PAYGO	[C]=[A]-[B]	$ 25,622,691	$ 24,683,119	$ 24,005,044	$ 23,379,178	$ 25,527,353	$ 27,722,844
PFC Supported Debt Service							
Series 2002 PFC Bonds		$ 2,747,400	$ 2,746,625	$ 2,747,550	$ 2,746,825	$ 2,752,075	$ 2,757,725
Series 2005 PFC Bonds		2,692,338	2,684,838	2,684,975	2,687,225	2,686,325	2,687,275
Series 2007 PFC Bonds		5,331,163	5,332,163	5,328,663	5,330,663	5,332,663	5,329,413
2010 PFC Bonds		1,856,681	2,394,775	2,395,475	2,395,875	2,395,975	2,393,875
Total PFC Supported Debt Service	[D]	$ 12,627,581	$ 13,158,400	$ 13,156,663	$ 13,160,588	$ 13,167,038	$ 13,168,288
Unused PFCs - Current Year	[E]=[C]-[D]	$ 12,995,110	$ 11,524,719	$ 10,848,381	$ 10,218,591	$ 12,360,316	$ 14,554,556
Reserved for Coverage	[F]=[D]*.3	$ 3,788,274	$ 3,947,520	$ 3,946,999	$ 3,948,176	$ 3,950,111	$ 3,950,486
Remaining Unused PFCs	[G]=[E]-[F]	$ 9,206,835	$ 7,577,199	$ 6,901,382	$ 6,270,415	$ 8,410,204	$ 10,604,070
PFC Eligible GARB Debt Service	[H]	$ 878,614	$ 985,042	$ 2,376,838	$ 3,027,188	$ 3,026,737	$ 3,025,745
Excess PFCs Used to Pay GARB Debt Service	[I]=MIN([G],[H])	$ 878,614	$ 985,042	$ 2,376,838	$ 3,027,188	$ 3,026,737	$ 3,025,745
Ending Balance	=[E]-[I]	$ 12,116,496	$ 10,539,677	$ 8,471,543	$ 7,191,403	$ 9,333,579	$ 11,528,811
PFC Budget Covenant	=[C]/[D]	2.03	1.88	1.82	1.78	1.94	2.11
Actual PFC Debt Service Coverage							
Subordinated Net Revenues	[J]	$ 15,356,656	$ 14,916,572	$ 14,637,125	$ 13,948,215	$ 16,925,231	$ 17,986,662
Actual PFC Debt Service Coverage	=([C]+[J])/[D]	3.25	3.01	2.94	2.84	3.22	3.47

Sources: Ricondo & Associates, Inc., December 2010.
Prepared by: Ricondo & Associates, Inc.

enplaned passenger remain reasonable over the planning period and projected Airport System funds appear to be adequate to effectively operate the Airport System. Debt service coverage is projected to be significantly above the minimum 125 percent of debt service throughout the projection period. Furthermore, sufficient level of Airport System funds remain after paying O&M, debt service, funding reserves and funding capital projects.

As implementation of the Short-Term Projects progresses, the City should continually assess the financial feasibility of each project included in the Short-Term Projects. Future considerations regarding the financial feasibility of the Short-Term Projects include the following:

- Enplanement/traffic growth – The financial analysis was prepared based on projected future passenger activity. Actual enplanements from year to year will likely deviate from the forecast. Significant changes in enplanement levels may impact revenues and expenses, as well as PFC and CFC revenues, and AIP grants.
- Availability of AIP funds – The current funding strategy proposed for the Short-Term Projects assumes that the FAA will continue to authorize and appropriate AIP funds for eligible projects on a similar level as experienced in recent years. Because the level of authorized and appropriated AIP funds varies year to year, alternative funding sources may need to be identified if grants cannot be obtained for certain eligible projects.
- Potential increase in maximum PFC level - Airport industry groups have requested that federal PFC regulations be changed to increase the PFC program's maximum PFC level from its current level of $4.50. As part of its reauthorization proposal for 2008-2010, the FAA proposed that the maximum PFC level be increased to $6.00. On June 30, 2008, the FAA Extension Act of 2008 (H.R. 6327) was signed into law, extending FAA programs through September 30, 2008, although it did not change the maximum PFC level. As of the date of this analysis, a Reauthorization Bill that could potentially increase the maximum PFC level has not been adopted by the House and the Senate. The financial projections and the financing plan reflected in this Working Paper assume SAT's current $4.50 PFC level is in place for the entire planning period. If federal PFC regulations are changed and the maximum PFC level is increased, the City may choose to apply to the FAA for authorization to collect the higher PFC level.
- Airline Agreement – This financial analysis assumes an airline rates and charges structure based on a City Ordinance while the City continues to negotiate a new use and lease agreement with the airlines. Although this approach is deemed reasonable within the industry, significant deviations from the assumed methodology could impact the level of funding derived from airline revenues.